

CONTRACT END ITEM DETAIL SPECIFICATION. PART I.
(COMPUTER PROGRAM). PERFORMANCE/DESIGN REQUIRE-
MENTS AND DETAILED TECHNICAL DESCRIPTION. VOLUME I.
TDSDT TACC FUNCTIONAL SOFTWARE

System Development Corporation
Lexington, Massachusetts

1 December 1971

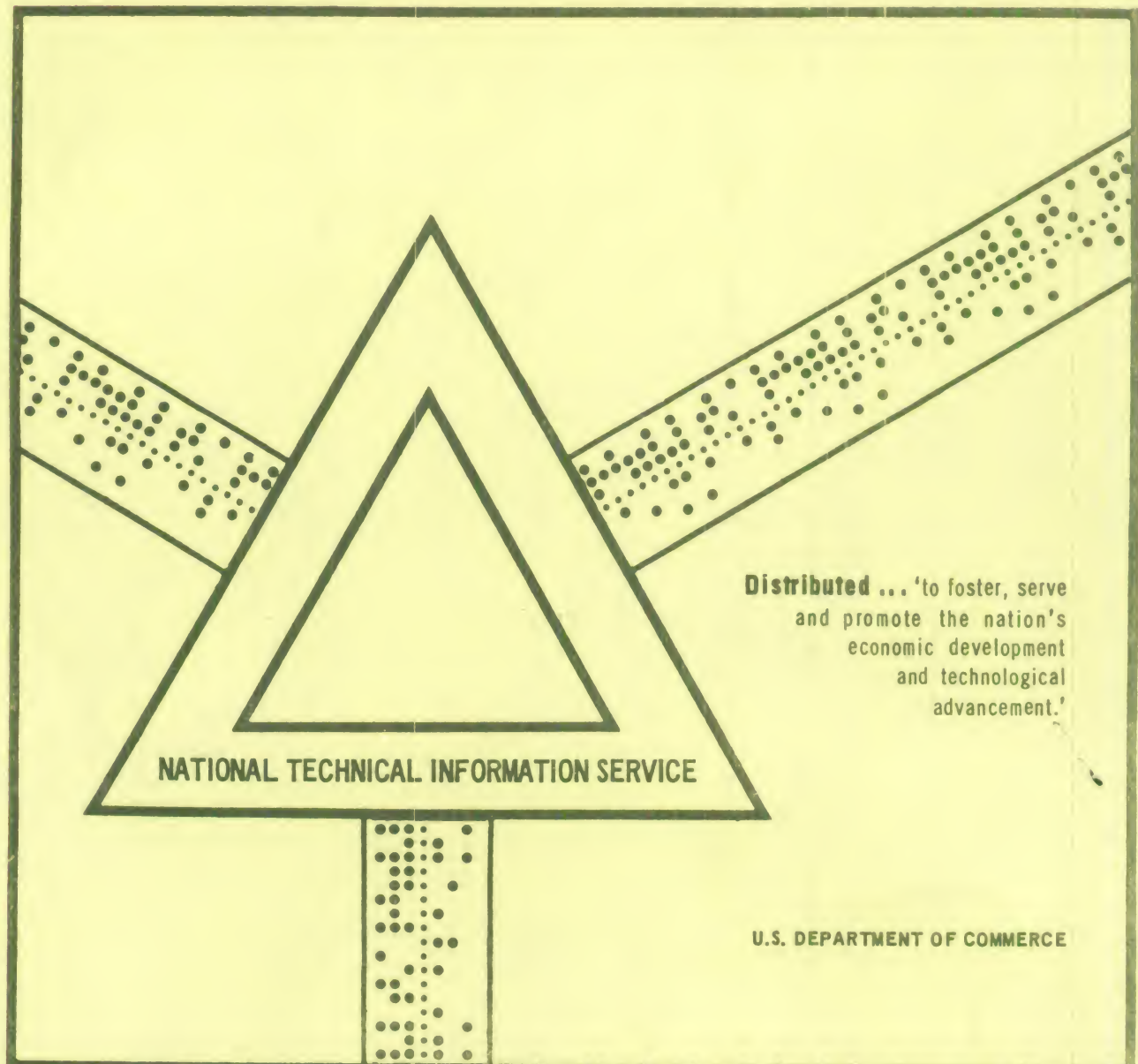
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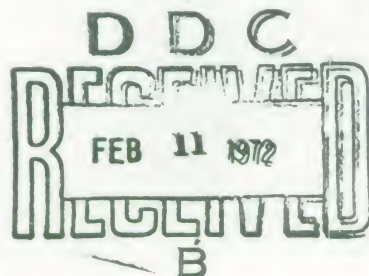
PART I (COMPUTER PROGRAM)

PERFORMANCE/DESIGN REQUIREMENTS
AND
DETAILED TECHNICAL DESCRIPTION

VOLUME I

TDSOT TACC FUNCTIONAL SOFTWARE

CONTRACT F19628-71-C-0020



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TECHNICAL MEMORANDUM

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FINAL
CONTRACT END ITEM DETAIL SPECIFICATION

PART I (COMPUTER PROGRAM)

PERFORMANCE/DESIGN REQUIREMENTS
AND
DETAILED TECHNICAL DESCRIPTION

VOLUME I

TDSDT TACC FUNCTIONAL SOFTWARE

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13. ABSTRACT <p>This Technical Memorandum presents the Contract End Item Detail Specification - Part I (Computer Program). The performance/design requirements for the Functional Software developed in support of the Tactical Data System Development Testbed (TDSDT) are specified. The specification identifies the functional processing required to provide automated assistance to the Current Operations activities within the Tactical Air Control Center (TACC). This volume defines the full set of software functional specifications.</p>			

14.

KEY WORDS

LINK A

LINK B

LINK C

ROLE

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ROLE

WT

ROLE

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ABSTRACT

This Technical Memorandum presents the Contract End Item Detail Specification - Part I (Computer Program) called for under CDRL Item A006 of Contract #F19628-71-C-0020.

The performance/design requirements for the Functional Software developed in support of the Tactical Data System Development Testbed (TDSDT) are specified. The specification identifies the functional processing required to provide automated assistance to the Current Operations activities within the Tactical Air Control Center (TACC).

This volume (Volume I) defines the full set of software functional specifications. Volume II reorganizes the operator interface data into an operator oriented description of the operator actions and system responses.

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1.0 SCOPE

This specification establishes the requirements for performance, design, test and qualification of the functional software for the Tactical Data System Development Testbed (TDSDT). The functional processes required to provide automated assistance to Tactical Air Control Center (TACC) operations are identified. The requirements for functional processing, related message processing and the data base are defined.

The functional processes described in this specification provide support to the TACC Current Operations activity in planning, coordinating, directing and monitoring the Tactical Combat and Combat Support Functions:

Combat Functions

1. Counter Air
2. Interdiction
3. Close Air Support (CAS)
4. Reconnaissance (RECCE)

Support Functions

1. Aerial Refueling
2. Electronic Countermeasures
3. Search and Rescue
4. Combat Air Patrol/Escort

The functional processes described herein were developed utilizing, MTR-974, TACC Functional Software Requirements for the TDSDT, and ESD letter dated 27 April 1971 re: TM-LX-346/600/00-Draft to define the scope of the TACC automation capabilities to be provided. Tactical Air Command Manuals and Air Force Manuals provided the basis for identifying operational requirements of the TACC and data requirements within the Tactical Air Control System (TACS). Section 2.0 provides a list of the documents used in the definition of performance requirements for this system.

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2.0 APPLICABLE DOCUMENTS

The following documents of exact issue shown form a part of this specification to the extent specified herein. In case of conflict between documents referenced here and the detailed contents of Sections 3,4 and 5, the detailed requirements in Sections 3,4 and 5 shall be considered superseding requirements.

MTR-974	TACC Functional Software Requirements for the TDSDT, 24 November 1969
MTR-852	AESOP-B Program Documentation
AFM-55-11	Air Force Operational Reporting System, 12 June 1970
AFM 10-2	Air Force Message Management Program, 1 July 1970
AFM 2-1	Tactical Air Operations - Counter Air, Close Air Support, and Air Interdiction, 2 May 1969
JCS Pub-6	Joint Reporting Structure, Volume V, U.S.Air Force Reporting Instructions, June 1970
TACM 55-44	Aircraft Control and Warning (ACW) Operations Manual, July 1969
TACM 55-45	Air Force Component Command Post and Tactical Air Control Center Operations, 7 January 1970
TACM 55-46	Direct Air Support Center/Tactical Air Control Party, Operations, 10 December 1969
TACM 200-1	Intelligence Reporting Manual, October 1968
Handbook	Air Combat Intelligence in the Joint Tactical Environment
TM-LX-346/200-203	General Purpose & Functional Software in the TDSDT
TM-LX-346/800/00	Cat.I Test Plan/Procedures (Preliminary Operational Demonstration Plan for TDSDT Functional Software), 19 May 1971

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2.0 APPLICABLE DOCUMENTS (Cont)

TM-LX-346/600/00	Preliminary Part I (Performance/Design Requirements and Detailed Technical Description for TDSDT TACC Functional Software), 19 May 1971
Letter	ESD letter dated 27 April 1971 re:TM-LX-346/600/00-Draft
MTR-1834/02	Multistation User's Manual, 10 April 1970

3.0 REQUIREMENTS

The TACC Functional Software for the TDSDT is designed to be responsive to the TACC operational requirements. The TACC is the focal point of the Tactical Air Control System (TACS) and serves to direct the employment of the tactical air forces in response to a constantly changing tactical situation. The TACC is connected by communications with operations centers of higher and lateral headquarters, subordinate units and subordinate agencies of the TACS. Figure 1 provides a schematic of a typical TACS as depicted in TACM 55-45. The basic principle of this structure is centralized control of tactical air operations by the TACC, with decentralized control for direct air support of ground forces through the Direct Air Support Center (DASC) and for air defense through the Control and Reporting Center (CRC).

TACC centralized control of air operations is made possible through the presentation and evaluation of the operational factors of tactical operations data and reports. The data reflects the status of forces, operations in progress and actions of the enemy. This data is received in the form of reports, messages and requests from the various elements within the TACS. They are used by TACC personnel in performing the mission planning, coordinating, directing and monitoring responsibilities.

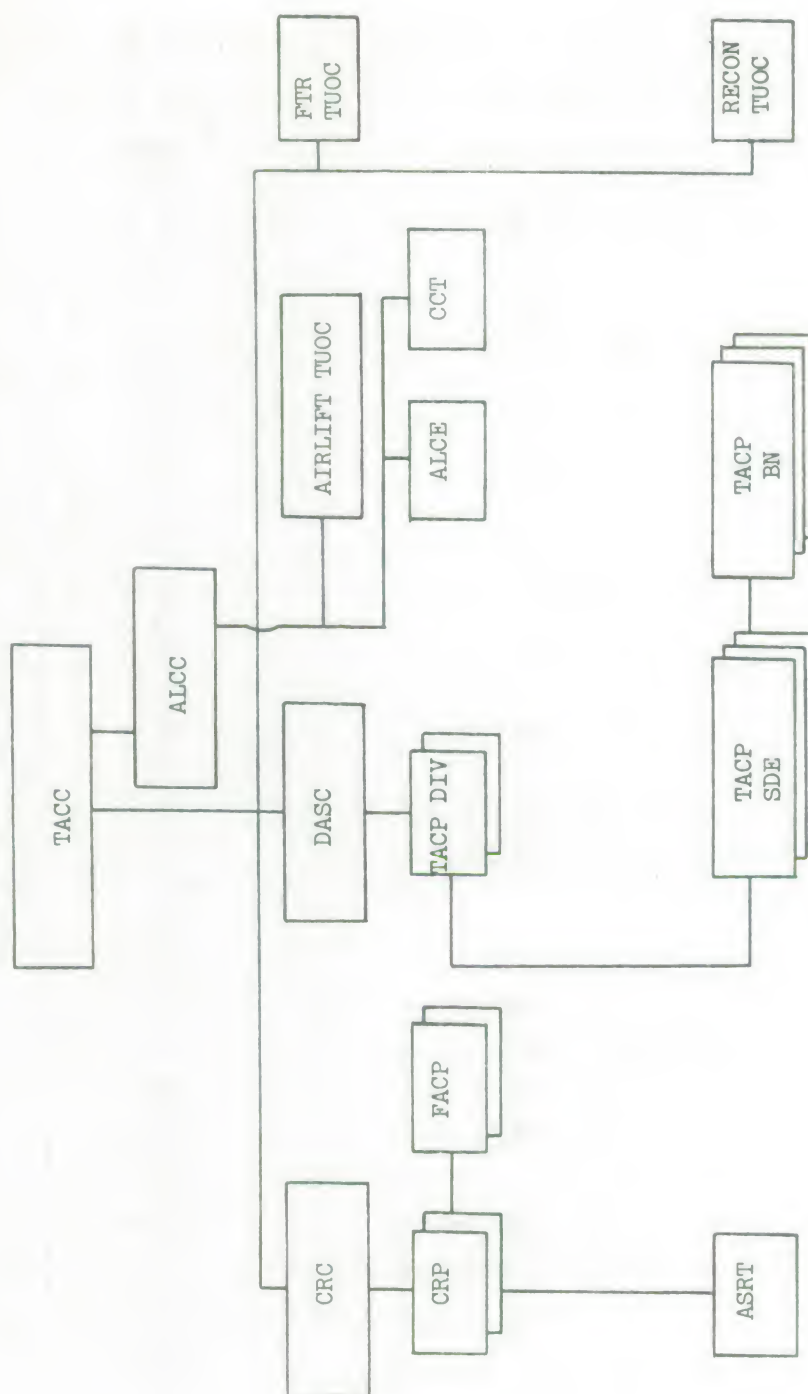


Figure 1. A Typical Tactical Air Control System

3.1 PERFORMANCE

TSDST System Structure

The data received from elements within the TACS reflects a dynamic tactical situation. It must be received, processed, and presented such that in a timely manner it supports the execution of the TACC operational responsibilities.

Within the TSDST there are three basic elements of the processing system:

Equipment

Data Management System/Control Software

Functional Software

The Equipment and Data Management System elements currently exist, while this specification establishes the requirements for the Functional Software.

Equipment

The hardware system is composed of a central data processor, intermediate data processors, user input/output devices (user stations), and associated communications between all equipment. Each of the hardware components is discussed below.

CENTRAL DATA PROCESSOR

The following is a list of the hardware components of the Central Data Processor:

- (1) IBM-1800 Computer
- (1) IBM-1442-2 Card Reader/Card Punch
- (1) IBM-1443-2 Line Printer
- (1) IBM-2841-1 Disk Control Unit
- (1) IBM-2311-1 Disk Drives with Removable Disk Packs

INTERMEDIATE LEVEL PROCESSORS

The following is a list of the hardware components of the Intermediate Level Processors:

- (3) Digital Equipment Corporation PDP-8 Computers
- (1) ASR Teletype
- (3) High Speed Paper Tape Readers
- (3) Royal McBee Model 500 Paper Tape Punches
- (1) Disk Storage Drive
- (1) Drum Storage Drive

USER STATIONS

The following is a list of the hardware associated with the User Stations:

- (6) Sanders 720 Display Units
- (6) Motorola 4300 Printers
- (6) Kennedy Model 1400R Digital Tape Recorders
- (1) RCA-752 Display Unit
- (1) TP-4000 Motorola Teleprinter
- (3) Uniquely designed communications adapters

HARDWARE INTERFACES

The Central Data Processor hardware interfaces with the Intermediate Level Processor hardware by means of a high speed communications line. The hardware interface between the Central Data Processor and the User Stations is only through the communications facilities of the Intermediate Level Processor. The hardware of the Intermediate Level Processor interfaces with both the Central Data Processor and the User Stations via communications lines. Similarly, the Intermediate Level Processors interface with one another via communications lines.

The User Stations interface with each other through the Intermediate Level Processors.

Data Management System/Control Software

The TDSDT system provides data management and control capabilities. This software consists of a set of general purpose, non-functional capabilities which provide job specific data processing support to on-line system users, directly or indirectly through functional software.

In addition to providing system control and sequencing, this non-functional software provides for the generation of data base files and capabilities for all types of interaction with and operations on those files, whether that interaction be requested directly by an on-line user or by functional software. It provides the interface between functional software and the operating system and between the functional software and on-line users (via the multistation controllers).

Although the TDSDT System is primarily an on-line, real time system, the basic portion has both an on-line and an off-line component. The on-line component consists of three subsystems: a control or executive subsystem, a data management subsystem, and an on-line user service subsystem. The off-line component consists of a data base file generation capability and a disk management subsystem. The concept of system operation and utilization under which the system was designed provides data processing support and involves several on-line system users. These users have well-defined operating jobs which are performed to a large extent by following established procedures. These procedures may be simple or they may be complex and conditional. The system users depend upon the data processing system as a primary source of information, a data management tool, and as repository of decisions and results. They communicate with the system through predefined, job specific messages. These messages, both input and output, are formatted to be as operationally appropriate and easy to use as possible. Each user input message precipitates a set of processing tasks, many of which are similar and involve interrogation and modification of the data base.

The data management/control capability includes file generation, disk management, system I/O, error outputs, data retrieval, selective data retrieval, data base update, stored message control, displays, data base erase, file rename and delete.

In support of the operating system, system control schedules, initiates, and monitors the execution of all processing within the TDSDT. Specifically, it:

- a) Establishes program environment.
- b) Provides proper sequence of control for the operation of functional processes.
- c) Responds to internally and externally generated stimuli.
- d) Performs all input/output servicing.
- e) Provides response to equipment malfunctions.

Functional Software

The Functional Software which will provide support to the TACC operations in coordinating, directing and monitoring the tactical air effort has been organized into the following processing functions:

- 1. Input Message Processing
- 2. Mission Adjustment
- 3. Message Preparation.
- 4. Condition/Event Monitoring
- 5. Display Control and Generation
- 6. Simulation

Input Message Processing

Provides complete processing of all input messages received from elements within the TACS. It:

- a) Processes messages input from the user stations.
- b) Selects and processes on the basis of time messages prestored in a simulation file, thus simulating the receipt of messages from external TACS elements.
- c) Validates selected items in manually input messages.
- d) Monitors messages to detect the reporting of an event or condition requiring operator notification.
- e) Distributes input data within the system files.

- f) Interfaces with Display Control and Generation to communicate with operations personnel relative to system inputs.

Mission Adjustment

Provides direct support to operations personnel in the adjustment of mission conduct and assignment. It supports:

- a) The adjustment of a planned mission to satisfy an immediate requirement.
- b) The scheduling of a new mission to satisfy a requirement.
- c) The addition of a RECCE requirement to a preplanned reconnaissance mission.
- d) The deletion of missions.
- e) The use of existing tanker resources in planning a new mission or adjusting an existing one.
- f) The identification of new or modified missions for output by Message Preparation.
- g) The presentation of candidate missions which can be adjusted to satisfy immediate requirements.
- h) The presentation of candidate requirements which can be satisfied by an available resource.
- i) The assignment of a SAR mission to a SAR requirement.

Message Preparation

Prepares and outputs FRAG Order data on missions which have been adjusted or newly planned and have been so identified by the Mission Adjustment Function. It:

- a) Formats and edits FRAG order data from the system files.
- b) Generates header information including copy distribution based on operational criteria.
- c) Causes complete messages to be output on the TDSDT system printer.

Condition/Event Monitoring

Monitors for the timely receipt of mission progress and element status reports. It:

- a) Checks the "as-of" time in the system files for those status entries which are scheduled to be reported at fixed times during the day.

- b) Based on mission status, checks for the presence in the schedule files of "actual" event times.
-) Interfaces with Display Control and Generation to provide operator notification if a status report or mission event report has not been received within a prespecified time after the scheduled time.

Display Control and Generation

Provides the presentation of operational data at the User Stations. It:

- a) Processes manual display requests from the User Stations.
- b) Processes display requests generated by the functional software.
- c) Prepares all operational displays for transmission to the appropriate User Stations.

Simulation

Provides a working simulation file of input messages to be processed by Input Message Processing. To construct this file, it:

- a) Accepts and sorts card inputs which define active functional positions and times of activity.
- b) Based on these cards, abstracts messages from a master simulation file.
- c) Removes the functional position data from the master simulation file messages which have been selected.
- d) Enters the selected messages in the working simulation file.

TSDST Positional Organization

The operational responsibilities for mission planning and mission monitoring have been divided into the following mission functions and subfunctions:

FUNCTION

Fighter Operations

SUB-FUNCTION

Interdiction/Offensive Counter-Air
Immediate CAS
Preplanned CAS
Air Defense

RECCE Operations

Immediate RECCE

Preplanned RECCE

Electronic Warfare

Tanker Operations

Aerial Refueling

Search & Rescue Operations

Search and Rescue

Within the TDSDT any subfunction can be assigned to any one or combination of positions (User Station). The only restriction is that no more than four subfunctions may be assigned to any given position.

Communications of any type, particularly those regarding operational messages received at the TDSDT, are routed to User Stations based on the assignment of mission functions and sub-functions.

External TACS Interfaces

Since a data link does not currently exist with other facilities such as would exist within a TACS network, this system simulates the interface with external agencies.

Messages from external agencies can be scripted in basically the same form as they would be received via data link and prestored in the computer system. The Input Processing Function on a real-time basis inputs prestored messages at the scripted reporting times. The messages can then be processed in the same manner as if they had been received via data link.

3.1.1 System Requirements

The system requirements for the TDSDT functional software are based on the design requirements contained in MTR-974 and the data requirements necessary to support a Medium Tactical Force Situation as described in TACM 55-45. The system requirements were developed by equating the system design to the sizing data which relate to TACC operations as described in the tactical configuration. The system design is described in the Operational Requirements Section of this document (see Section 3.1.2). The Medium Tactical Force Situation, as modified for use in this system, is described below.

For this system the following numbers and types of tactical elements were considered:

- Joint Force Headquarters
- Air Force Component Command Post (AFCCP)
- 2 Tactical Fighter Wings (8 Squadrons)
- 1 Composite Reconnaissance Squadron
- 1 Mobile Communications Group (Element)
- 1 Tactical Air Control Center (TACC)
- 1 Control and Reporting Center (CRC)
- 1 Control and Reporting Post (CRP)
- 3 Forward Air Control Posts (FACPs)
- 3 Air Support Radar Teams (ASRTs)
- 1 Direct Air Support Center (DASC)
- Tactical Air Control Parties (TACPs) as required

In addition to the above tactical elements, the following support elements were also considered:

- 1 Tanker Squadron
- 1 Search and Rescue Squadron

The system requirements are described in the following sections. These requirements or system limits are specified to establish the size of the data base files. It should be noted that the capabilities of the individual processing functions as presently designed are only limited by the size of these files.

3.1.1.1 Input Messages

The system will accept and process the following types of input messages. Source and/or events are indicated as appropriate. Number of events are estimates for a 24 hour time period.

<u>MESSAGE TYPE</u>	<u>NUMBER OF SOURCES</u>	<u>EVENTS</u>
Abort	11	10
Air Defense Fighter Status	8	10
Air Defense Scramble		16
Air Delay		10
Aircraft in Distress		10
Airfield and Flight Facility Status	8	16
Air Surveillance Data	1*	*
Cancellation Request		6
Downed Pilot Report		6
Ground Delay		10
Immediate CAS Scramble	1	10
Immediate RECCE Scramble	1	6
Inflight Report		78
Joint Tactical Air Request		30
Joint Tactical Air Reconnaissance/ Surveillance Request	50	50
Joint Tactical Air Reconnaissance/ Surveillance Inflight Report		45
Landing	11	102
On-Station		12
Position Report Aircraft in Distress		**
Refueling Report	1	100
SAR Mission Position Report	1	***
SAR Mission Progress Report	1	30
TACS Facility Status	1	9
Tactical Action Data		32
Tactical Unit Status	11	66
Takeoff	11	102

* Up to 10 tracks may be reported upon at any given time, with updates on 2-4 minute intervals.

** Reports issued at 5 minute intervals.

*** Reports issued at 15 minute intervals.

The above data are representative and are included for guidance. They are not intended to dictate file size nor to constrain tests and demonstrations using the system.

3.1.1.2 Mission Data

The system will provide the capability for planning and monitoring the following types and numbers of missions:

<u>MISSION TYPE</u>	<u>MAXIMUM NO. OF MISSIONS</u>
Preplanned Fighter	40
(1) Interdiction	
(2) Counter Air	
(3) Preplanned CAS	
(4) Combat Air Patrol	
(5) Escort	
Immediate CAS	30
Preplanned RECCE	12
Air Defense	30
Immediate RECCE	12
EW	6
Search and Rescue	12
Air Refueling	12

The above outline of number of missions per type is included for guidance. The capability will exist to assign 70-80% of the fighter force against any one mission type.

3.1.1.3 Mission Diversion Data

Up to 50% of the fighter missions and reconnaissance missions may be diverted.

3.1.1.4 Squadron Data

The system will accommodate the following squadron data:

<u>SQUADRON TYPE</u>	<u>NO.OF SQUADRONS</u>	<u>NO.OF A/C TYPES PER SQUADRON</u>	<u>MAX.NO.OF MISSIONS PER SQUADRON</u>
Fighter	8	1	10
Composite RECCE:	1	2	24 (Total)
RECCE		1	24
EW		1	6

3.1.1.4 Squadron Data (Cont)

<u>SQUADRON TYPE</u>	<u>NO. OF SQUADRONS</u>	<u>NO.OF A/C TYPES PER SQUADRON</u>	<u>MAX.NO.OF MISSIONS PER SQUADRON</u>
Search and Rescue	1	2	12
Aerial Refueling	1	1	12

3.1.1.5 Aircraft Characteristics Data

The system will provide performance characteristics for the following aircraft types:

For Fighter Missions: F4E and F105D
For RECCE Missions: RF4E
For EW Missions: EB66D

3.1.1.6 Mission Requirements Data

The system will accommodate the following mission requirements data:

<u>REQUIREMENT/REQUEST TYPE</u>	<u>NO.OF REQUIREMENTS/ REQUESTS</u>
Targets	75
Preplanned CAS	30
Preplanned RECCE	50
Search and Rescue	12

3.1.2 Operational Requirements

The processing requirements for each function are specified in this section. It should be noted that the individual functions identify the functional requirements for displays and files. The processing requirements for the different types of displays and the format and content of displays are provided within the Display Control and Generation Function description. The file data is referenced within each function, but the complete specification of the file requirements is given in Section 3.1.3, Data Base Requirements.

The interfaces of the processing functions and the operation of the system are depicted in Figure 2. The functions are numbered from left to right with interfacing functions identified in the circles below the boxes identifying the functions.

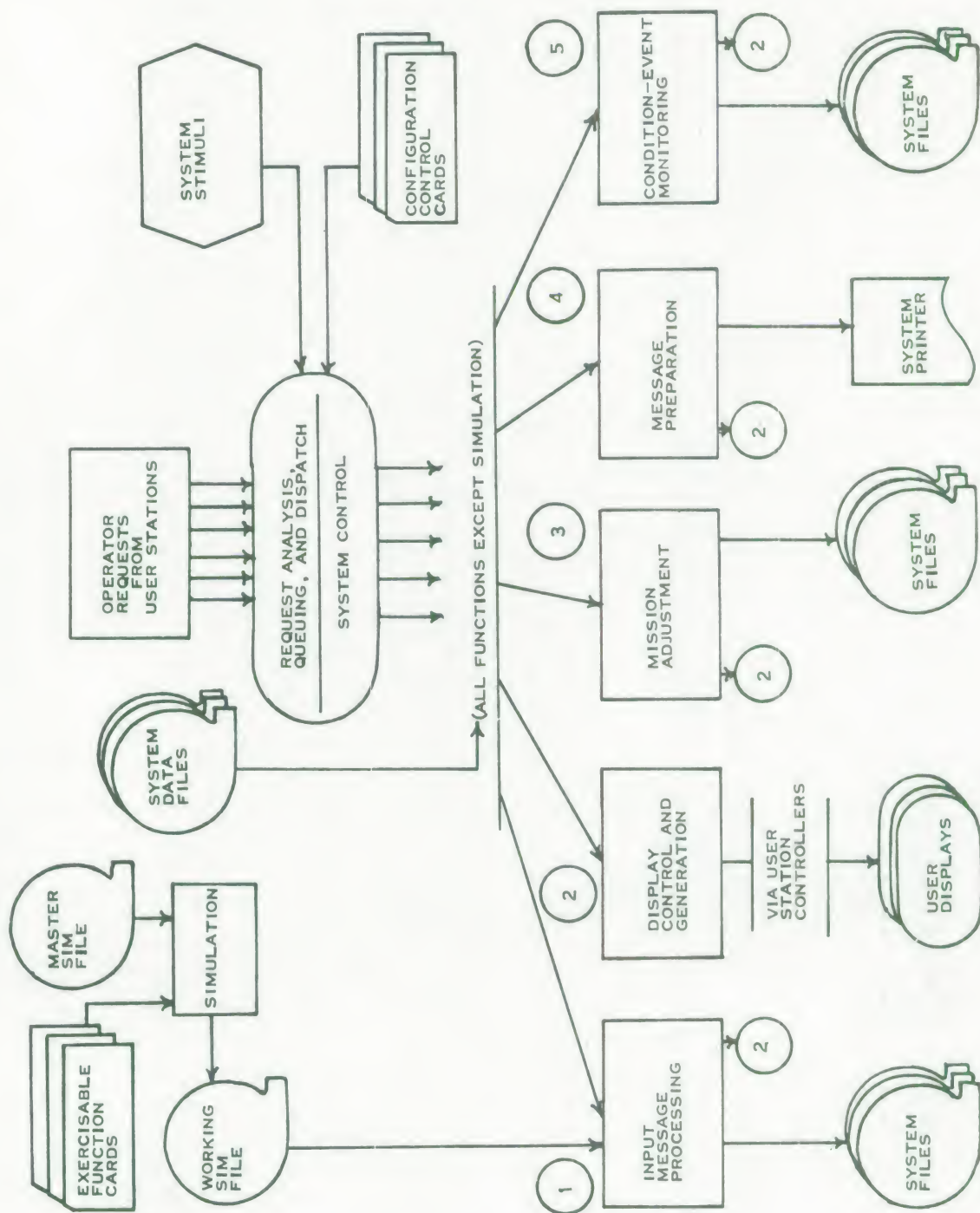
Centralized processing is identified for all input messages, displays and output messages. In this manner control can be exercised over all communications to facilitate timely and effective presentation, processing and handling of message data.

The introductory paragraphs of each functional process in the sections which follow are intended to provide the reader with an understanding of the manner in which the processing capability would be used to satisfy operational requirements. A logical sequence of operator actions with descriptions of the processing steps involved is provided to place the function in an operational context showing how it might be utilized to support Current Operations activities. Certain functions provide little or no direct interactive support to the user and consequently the introduction may be more processing oriented than operationally oriented.

In addition to the individual functional areas, this section also contains a description of System Control and a summary of the Current Plans activity which, in an operational environment, would have taken place prior to the Current Operations activities supported by the functional software. The System Control description concentrates on specific requirements related to the operational functions. The Current Plans subsection is oriented towards the files which are produced and structured by this activity for use by Current Operations.

Figure 2

Functional Interfaces and Operation in the TSDST



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3.1.2.1 System Control Function

System control functions operate and monitor the execution of all computer programs for the TDSDT. System control functions operate in both the IBM-1800 and PDP-8 computers and accomplish such tasks as:

- . establish program environment
- . provide proper sequence of control for the various system functions
- . respond to equipment and functional program stimuli
- . intercept and perform all necessary input and output services for the functional programs including the analysis of manually input operator requests
- . interpret and provide the necessary recovery from certain equipment malfunctions
- . prioritize the operation of system functions

The system control functions are provided by the TDSDT Systems including the IBM Multiprogramming Executive (MPX) for the IBM-1800 computer and the MCP portion of the PDP-8 software.

3.1.2.1.1 Source and Type of Inputs

The system control function processes the following types of inputs:

Manual Input Requests
Timing Information
System Files

As a group, all of these inputs, other than the System files, are called system stimuli. System Control responds to the various conditions and stimuli by inserting a request for a corresponding functional process in appropriate request queues. These queues contain the processing requests, derived from the stimuli, that are introduced into the system from both external (e.g. operator action) and internal (e.g. functional software) sources.

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3.1.2.1.1.1 Manual Input Requests (Operator Actions)

Any operator may initiate a manual input request from any User Station. When an operator enters a request line on his display screen and transmits that line to the TDSDT, he has made a manual input request.

The System Control Function processes only that part of an input request intended for it (e.g., a keyword in a request is used to identify a functional process that is to be operated). Those inputs or data intended for the functional process, that is, the parameters or arguments for a function, are retained by System Control for use by the individual processing program. Manual input requests result in the initiation of one or more TDSDT functions. The System Control Function examines the keyword of the input lines, determines whether it is a priority request, and enters a request for the associated function in the appropriate processing queue.

3.1.2.1.1.2 Timing Information

The System Control Function provides timing services for all TDSDT functions. Additionally, this timing information is used to determine when the time dependent, cyclic functions must operate. By using the system's hardware timers, System Control is able continuously to establish new time periods and schedule functions for later operation. Processing after the lapse of a time interval causes System Control to initiate functions, and dynamically control the system's complete operation.

With the aid of this timing information, the System Control Function operates the repetitive, or cyclic, functions at the expiration of predetermined time intervals. The following TDSDT functions can be initiated by the lapse of a time period:

Input Message Processing (Section 3.1.2.2)

Condition/Event Monitoring (Section 3.1.2.6)

3.1.2.1.1.3 System Files

Numerous files comprise the data base for the TDSDT. These files may be preset with initial values at system start-up time to provide a working data base for the TDSDT. During system operation these files are modified as a result of both operator actions and automatic system processing. Section 3.1.3 contains a complete description of the TDSDT data base.

3.1.2.1.2 Destination and Types of Output

The System Control Function produces the following types of outputs:

- System Control Data
- Updated System Files
- Displays

Output types of special interest in the implementation or operation of the functional software are discussed below.

3.1.2.1.2.1 The System Status Table

The System Status Table contains system data including the relationship between a User Station, its multistation controller and the assigned operational sub-functions. The mode for the stations using the Current Operations functions is CUROPS. The functional positions (assignments) are shown in Figure 3. The short titles are the codes which are entered into the table to define the functional configuration. These codes are converted to the four character routing codes for the addressing of alarm/alert notifications. While the TDSDT is operating, this table may be manually modified to reflect any appropriate change in responsibilities such that any sub-function could be assigned to any one or combination of the six possible User Stations. A maximum of four sub-functions may be assigned to any station at any one time. The initial and subsequent configurations determine the destinations of the various system responses and displays generated by the processing in the TDSDT.

A display of this table (see 3.1.2.7.6.1 - Control Display) is available to any User Station at any time. Using this display, an operator is able to make changes to the operational configuration of the system.

Functional Positions in the TSDT

<u>Function</u>	<u>Subfunction</u>	<u>Short Title</u>
Fighter Operations	Interdiction/Counter Air	INT/CA
	Immediate CAS	ICAS
	Preplanned CAS	PCAS
	Air Defense	AIRDEF
RECCE Operations	Immediate RECCE	IREC
	Preplanned RECCE	PREC
	Electronic Warfare	EW
Tanker Operations	Aerial Refueling	TANKER
SAR Operations	Search and Rescue	SAR

Figure 3

3.1.2.1.2.2 Time Advance Indicator

The Input Processing Function provides for the skipping of input messages if so directed by operator action. This operator action consists of inserting an "X" after

TIME ADVANCE:

which is included as any entry in the Control Display. In response to this action, Input Processing skips all messages scheduled prior to the time entered in SIM TIME. The indicator is cleared by Input Processing after the message skipping has been completed.

3.1.2.1.2.3 Simulation Control

There are two simulation functions which may be simultaneously operating - Airlift and Current Operations, and consequently there are two simulation controls maintained in the System Status Table and modifiable through its display. Airlift simulation (SIM:) is designated as either "OFF" or "nn" on the Control Display; current operations simulation (C/O SIM:) has the two states: "OFF" or "nn" where "nn" is a value between 1 and 99 representing the minimum time interval to be allowed between readings of message blocks from the Working Simulation File by the Input Processing Function (see Section 3.1.2.2). The nominal value is 2 minutes.

3.1.2.1.2.4 Monitor Control

This is analogous to Simulation Control in that there are separate controls for Airlift (MON:) and Current Operations (C/E MON:) and that the Current Operations monitor provides for a cycle time variable between 1 and 99 minutes. The nominal cycle time is 5 minutes (see Section 3.1.2.6).

3.1.2.1.2.5 FRAG Order Number

This is the sequence number of the FRAG Order (FRAG:) for the current day. It is used by the Message Preparation Function in composing headers for FRAG Order Adjustment Messages (see Section 3.1.2.5).

3.1.2.1.2.6 Input Message Sequence Number

This is the sequence number of the next message to be read from the Working Simulation File by the Input Processing Function. It is not a parameter which is particularly meaningful to operational personnel and consequently should not be included in the Control Display. It is maintained in the System Status Table since it is critical to the effective operation of input message simulation.

3.1.2.1.2.7 Simulated Time

This time is the current simulation time. It is used in conjunction with the Time Advance Indicator to inform Input Processing of the time to which message processing should be jumped, i.e., the time prior to which messages should be skipped. Simulated date (SIM DATE:) is also included on the Control Display.

3.1.2.1.2.8 System Disk Packs

Up to four active disk pack identifiers can be presented in the Control Display. This information is not modifiable by operator action.

3.1.2.1.2.9 Displays

The System Control Function requests the Display Control and Generation Function to present display information at the User Stations. The following types of information may be displayed:

- . Error Messages
- . Acknowledgement Indicator
- . System Status Table

3.1.2.1.2.9.1 Error Messages

A variety of messages can be generated by System Control. Some of these messages are displayed at the User Stations while other messages are sent to the computer operator's console typewriter. The error messages are provided by the existing control software.

3.1.2.1.2.9.2 Acknowledgement Indicators

Each operator action, (i.e., manual input request) is acknowledged by the display of an indicator from the PDP-8.

3.1.2.1.2.9.3 System Status Table Display

As previously noted, any User Station may request a display of the System Status Table (i.e. Control Display). The displayed data includes the location (station) of each functional position, its multistation controller, any unassigned stations, etc. To get the Control Display the operator enters:

INITIATE TSDT.

Most displayed information can be modified from any User Station, but care must be taken not to enter data from any two stations simultaneously. If this were done, then any intervening functional processing would misdirect output information to a previously assigned functional position.

3.1.2.1.3 Information Processing

The System control function provides for the continuous operation of the TSDT by:

1. Responding to the various system stimuli
2. Scheduling and initiating the functional processes and other system resources
3. Providing system integrity and continuity by constantly being prepared for system restart situations.

The system stimuli and their corresponding interpretations have been described above. Information processing performed by System Control is the interpretation of these stimuli which cause the scheduling and management of system resources.

3.1.2.1.3.1 Operational Characteristics

System Control initiates the functional processes in a sequential manner by the formal organization and interpretation of processing request queues. All processing in the TSDT terminates by exiting to the System Control Function, for both System Control initiated functions and the interrupt processing (e.g., hardware support) programs.

3.1.2.1.3.2 Functional Block Diagram

Figure 2 shows a schematic of overall TDSDT system operation as well as the various functional interfaces. The inputs to the System Control Functions are requests and stimuli. The outputs from this function are mainly generated by the various functional processes and other system generated responses (e.g., acknowledgement indicators). In Figure 2, a circled number (e.g., ③) indicates that processing logically continues at the functional process corresponding to the number as follows:

- ① Input Message Processing Function
- ② Display Control and Generation Function
- ③ Mission Adjustment
- ④ Message Preparation Function
- ⑤ Condition/Event Monitoring Function

3.1.2.1.3.3 Functional Interfaces

This section describes each of the TDSDT functions from the point of view of their interfaces with other system functions and the support provided by System Control. Each function is discussed as to its interface with other system functions.

All functions are constructed to notify System Control periodically that they can be suspended for subsequent rescheduling to permit interrupt processing. Some functions, as a normal part of their operation, request System Control to schedule the operation of another system function for additional processing support.

3.1.2.1.3.3.1 The Input Message Processing Function (Section 3.1.2.2)

This time dependent function may be initiated by either time lapse or manual input.

The Input Message Processing Function can request Display Control and Generation to be operated.

3.1.2.1.3.3.2 The Display Control and Generation Function (Section 3.1.2.7)

This function can be initiated by a manual input request or an internally generated request. In addition to System Control, this function can be requested by the following system functions:

- . Input Message Processing
- . Message Preparation
- . Mission Adjustment
- . Condition/Event Monitoring

This function does not request the direct initiation of any other TDSDT functional process.

3.1.2.1.3.3.3 The Mission Adjustment Function (Section 3.1.2.4)

This function is initiated by operator requests. This function requests the initiation of the Display Control and Generation Function for the presentation of User Station displays.

3.1.2.1.3.3.4 The Message Preparation Function (Section 3.1.2.5)

This function is initiated by an operator request and requests the operation of the Display Control and Generation Function.

3.1.2.1.3.3.5 The Condition/Event Monitoring Function (Section 3.1.2.6)

The Condition/Event Monitoring Function operates after a time interval (from the System Status Table) has elapsed, as scheduled by System Control. The Condition/Event Monitoring Function may request the operation of the Display Control and Generation Function.

3.1.2.1.3.4 System Input/Output Support

The System Control Function provides a centralized input/output capability for all peripheral equipment of the TDSDT. The functional processes, including System Control itself, request the various input and output file services via calls to the data management system. System functions do not

directly interface with a peripheral device other than through the data management software or the centralized device support software of System Control.

The input/output processing performed by System Control includes:

- . establishing core memory areas for return of status information by the peripheral controllers
- . sending requests to initiate and terminate data transfers
- . examining returned device status information for error conditions

3.1.2.1.3.5 User Station Initialization

The User Stations are initialized by the action:

← S OPT 7

which is followed by presentation of the User Options List.

3.1.2.1.3.6 System Start-Up

The TSDST is initiated via the TSDST System Control Functions. As soon as the entire system initialization sequence is complete, System Control notifies all User Stations that the TSDST is available for use by the display of:

TSDST IN OPERATION

at all positions.

3.1.2.1.3.7 Time of Day

System Control maintains data on both actual and simulated time of day. Actual time is inserted during system start-up and simulated time via the TSDST Control Display.

3.1.2.2 Input Message Processing Function

This function is responsible for all processing associated with messages which are entered into the system. These messages are input via either the Working Simulation File (section 3.1.2.2.1.2) or an operator entry from a user station. Specifically, the following tasks are performed by this function:

- a. validates manually input messages. Messages obtained from the Working Simulation File are assumed to be error free and consequently are not validated.
- b. reads from the Working Simulation File those messages which apply to the current time frame.
- c. monitors messages to detect the presence of an alert condition. Causes alerts to be output to appropriate operators as required.
- d. updates system files in accordance with message data.
- e. skips messages from the Working Simulation File for an indicated time interval when so directed by an operator.

The Input Message Processing Function is called by System Control (section 3.1.2.1) in response to any one of three conditions being met. These conditions are:

- a. a message has been manually entered;
- b. the internally scheduled time for the next operation of Input Processing has arrived;
- c. the Time Advance (skip messages) indicator has been set.

This function interfaces with the Display Control and Generation Function via the Monitoring Alerts File. When an alert condition is detected in an input message, an entry is made in this file and System Control is requested to schedule the operation of Display Control and Generation. It should be noted that the above references to the Monitoring Alerts File are to be considered descriptive of the functional requirements, but are not restrictive of the implementation techniques to be chosen during program design.

3.1.2.2.1 Sources and Types of Inputs

The inputs to this function are:

- . Manually entered messages
- . The Working Simulation File
- . The sequence number of the next message to be processed
- . The System Status Table
- . System Files

3.1.2.2.1.1 Manually Entered Messages

Messages may be entered into the system via an operator action at a user station. The available options and techniques applicable to this form of input are described within the Display Control and Generation Function, Section 3.1.2.7. All messages which can be input via the Working Simulation File can also be entered manually through a user station.

3.1.2.2.1.2 Working Simulation File

This file is made up off-line by the Simulation Function (Section 3.1.2.8). It contains all messages scheduled for automatic input during the operation of the current test or exercise. Each message contains a time tag which indicates the simulated time of receipt and a set of data fields which comprise the main body of the message.

3.1.2.2.1.3 Message Sequence Number

The sequence (object) number of the next message to be read from the Working Simulation File is maintained by this function. When called by System Control to process the Working Simulation File, Input Message Processing uses this number as a starting point for its reading of the file; during process operation, it uses the number to locate the next message to be read. When all messages have been processed for the current time frame, the sequence number is stored for use during the next operation of Input Processing (Section 3.1.2.2.5). It is therefore both an input to and an output from this function.

3.1.2.2.1.4 System Status Table

The System Status Table contains TSDST status and control information which defines the operational configuration of the system. The table is set with prestored values at system initialization and may be modified by subsequent operator action (see description of System Control, Section 3.1.2.1). Data in this table which are of particular concern to this function are described below.

3.1.2.2.1.4.1 Simulated Time

The simulated time is regarded as present time by this function and is used in identifying the messages to be read from the Working Simulation File.

3.1.2.2.1.4.2 Time Advance Indicator

This directs the Input Processing Function to skip messages in the Working Simulation File up to the time specified in: SIM TIME.

3.1.2.2.1.4.3 Simulation Time (SIM TIME)

This time is used in conjunction with the Time Advance Indicator (see 3.1.2.2.1.4.2). It is also used in the preparation of the Message Time Display (see Section 3.1.2.2.6).

3.1.2.2.1.5 System Files

Data in the following system files are used by this function. Specific data items are identified in the sections describing the processing of individual messages (3.1.2.2.3.2.3).

PFTRGRAG/MSN	Preplanned Fighter FRAG Order/Mission Schedule
ICASSCHED	Immediate Close Air Support Schedule
IRECSCHED	Immediate Reconnaissance Schedule
PRECFRAG/MSN	Preplanned Reconnaissance FRAG Order/Mission Schedule
EWFRAG/MSN	Electronic Warfare FRAG Order/Mission Schedule
REFUELSCHED	Refueling Schedule
SARFRAG/MSN	Search and Rescue FRAG Order/Mission Schedule
AFID/FLTFC	Airfield and Flight Facility Status
TACUNITSTAT	TAC Unit Status

3.1.2.2.2 Destinations and Types of Output

This function produces the following outputs:

- . Error Message Displays
- . Monitoring Alerts File
- . System Status Table changes
- . System Files updates
- . Sequence number of next message to be processed
- . Message Time Display

3.1.2.2.2.1 Error Message Displays

When a validity check detects an error made in the manual entry of a message, a display is presented to the station at which message originated. The display consists of the word "ERROR" followed by the message as entered with the first character of the incorrect field or fields flashing.

3.1.2.2.2.2 Monitoring Alerts File

This file is used to communicate to Display Control and Generation the fact that an alert condition has been detected. It contains: an alert number to identify the cause of the alert; an object identification to specify the data base object reference; an addressee for the alert; and three variables in which the alert condition may be further defined (see Figure 6).

3.1.2.2.2.3 System Status Table

Changes are made to two items in the System Status Table as a result of Input Processing:

3.1.2.2.2.3.1 Time Advance Indicator

If this function has been called as a result of the Time Advance Indicator being set, it resets the indicator after processing has been completed.

3.1.2.2.2.3.2 Simulation Time Interval

This item is modified based on the scheduled arrival time of the first message to be processed in the next operation of this function (see Section 3.1.2.2.3.2.2).

3.1.2.2.2.4 System Files

The following system files are updated in accordance with data received in input messages (see Figure 4). Specific data items are identified in the sections describing the processing of individual messages (3.1.2.2.3.2.3).

PFTRFRAG/MSN	Preplanned Fighter FRAG Order/Mission Schedule
ICASSCHED	Immediate Close Air Support Schedule
ADFRAG	Air Defense FRAG Order
IRECSCHED	Immediate Reconnaissance Schedule
PRECFRAG/MSN	Preplanned Reconnaissance FRAG Order/Mission Schedule
EWFRAG/MSN	Electronic Warfare FRAG Order/Mission Schedule
REFUELSCHED	Refueling Schedule
SARFRAG/MSN	Search and Rescue FRAG Order/Mission Schedule
ADFRSTAT	Air Defense Fighter Status
AFLD/FLTFC	Air Field and Flight Facility Status
PCASREQUEST	Preplanned CAS Request
SARREQ	SAR Requirements
PRECREQUEST	Preplanned RECCE Request
TRACKDATA	Track Data
ICASFRAG	Immediate CAS FRAG Order
IRECFRAG	Immediate RECCE FRAG Order
TACACTDATA	TAC Action Data
TACUNITSTAT	Tactical Unit Status
TACSFACSTAT	TACS Facility Status

3.1.2.2.2.5 Message Sequence Number

The sequence number of the next message in the Working Simulation File is maintained by this function. When all messages in the current time frame have been processed, this number is stored for use as a starting point for the processing performed in the next operation of the Input Processing Function. It is kept in Safe Data Storage to be available after a RESTART, should one occur.

MESSAGE TYPE	FILE NAME	PFTRFRAG/MSN	ICASSCHED	ADFRAG	IRECSCHED	PRECFRAG/MSN	EWFRAG/MSN	REFUELSCHED	SARFRAG/MSN	ADFTRSTAT	AFLD/FLTAC	PCASREQUEST	SARREQ	PRECREQUEST	TRACKDATA	ICASFRAG	IREFCFRAG	TACACTDATA	TACUNITSTAT	TACSFACSTAT
ABTR		X	X		X	X	X		X											
ADEL		X	X		X	X	X		X											
ADFS										X										
ADSM				X																
AFFS											X									
ACAQ												X								
AIDR		X	X		X	X	X		X				X							
ARSQ														X						
ASVD															X					
CANX			X		X															
DPRT		X	X		X	X	X		X				X							
GDEL		X	X		X	X	X		X											
ICSM			X									X				X				
INFR		X	X				X													
IRSM					X									X			X			
LDGR		X	X		X	X	X		X											
ONSR								X												
PRAD													X							
REFR		X				X	X	X												
RSIR					X	X														
SMPR									X											
SMRR									X				X							
TAAD																		X		
TAUS																			X	
TFAS																				X
TKOR		X	X		X	X	X		X											

Figure 4. File/Message Relationship

3.1.2.2.2.6 Message Time Display

Messages in the Working Simulation File are skipped in response to the Time Advance Indicator being set. When all appropriate messages have been skipped, notification is provided to the station at which the advance was requested. This display is in the form:

MESSAGE TIME JUMPED TO XXXX

where XXXX is the value of the advanced simulation time (SIM TIME-Section 3.1.2.2.1.4.3).

3.1.2.2.3 Information Processing

System Control calls the Input Message Processing Function in response to any one of three events:

- a. The Simulation Time Interval has elapsed since the last operation of the function.
- b. A message has been manually entered through a user station.
- c. The Time Advance Indicator has been set.

The first two cases involve the processing of input messages and differ only in the preliminary processing required in formatting and validation: alert condition processing and data distribution are the same regardless of the means of input.

The last case concerns only the skipping of messages on the Working Simulation File and does not involve the processing of message content.

Figure 5 is a generalized block diagram showing the processing flow within this function.

3.1.2.2.3.1 Time Advance

This mode of operation within Input Processing is called to bypass input messages in the Working Simulation File which have time tags falling within a specific period. This period is defined as the time interval between the simulation time of the last message read from the Working Simulation File in the previous operation of this function and the advanced simulation time specified when the Time Advance Indicator is set.

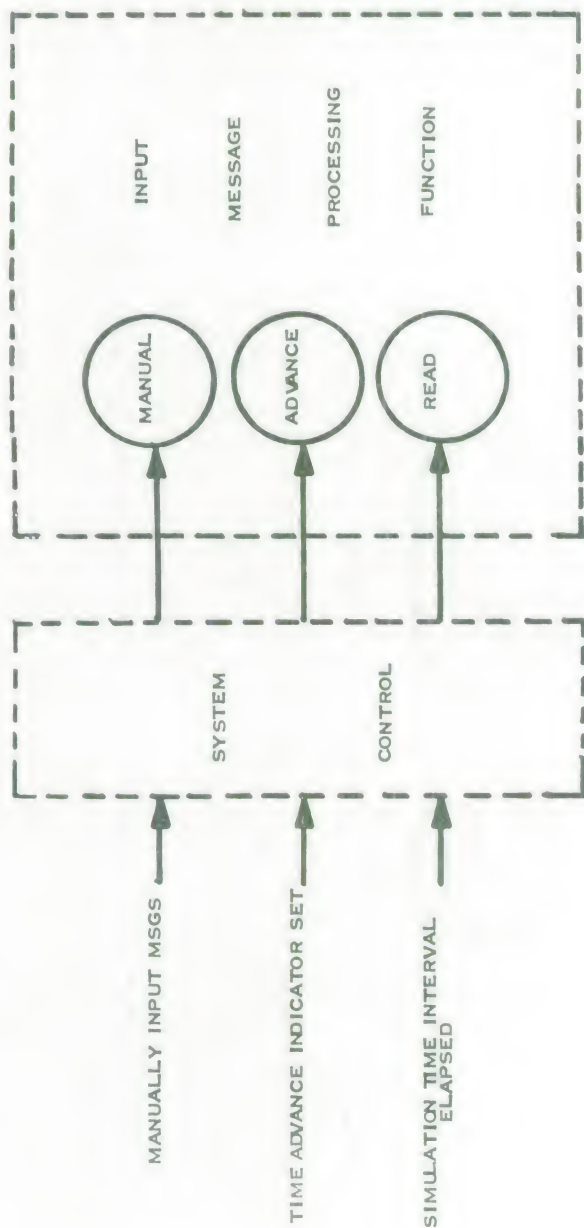


FIGURE 5.

INPUT MESSAGE PROCESSING FLOW (INITIATION)

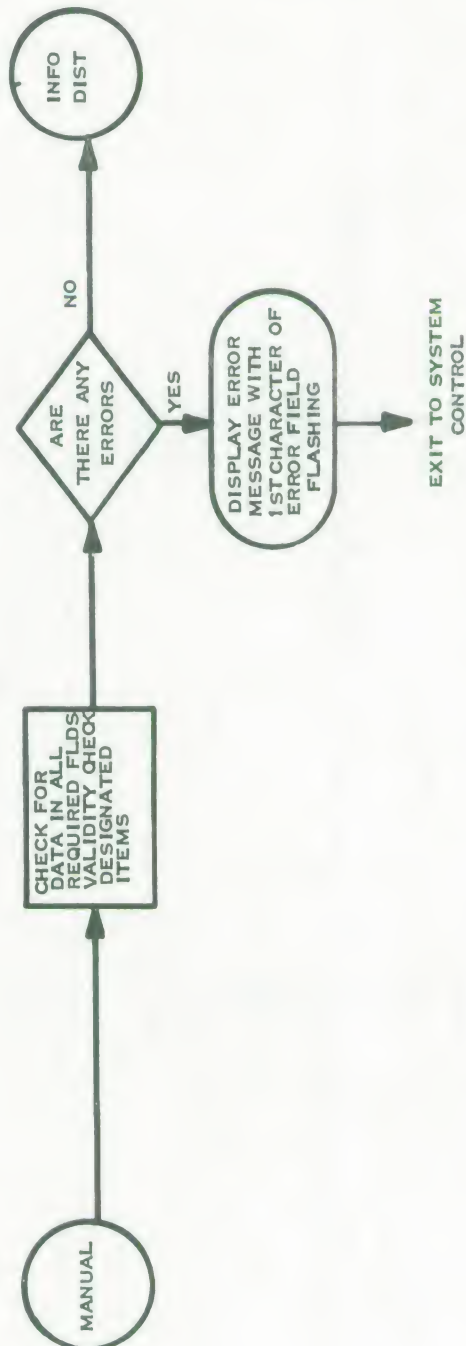


FIGURE 5 (CONT)

INPUT MESSAGE PROCESSING FLOW (MANUAL)

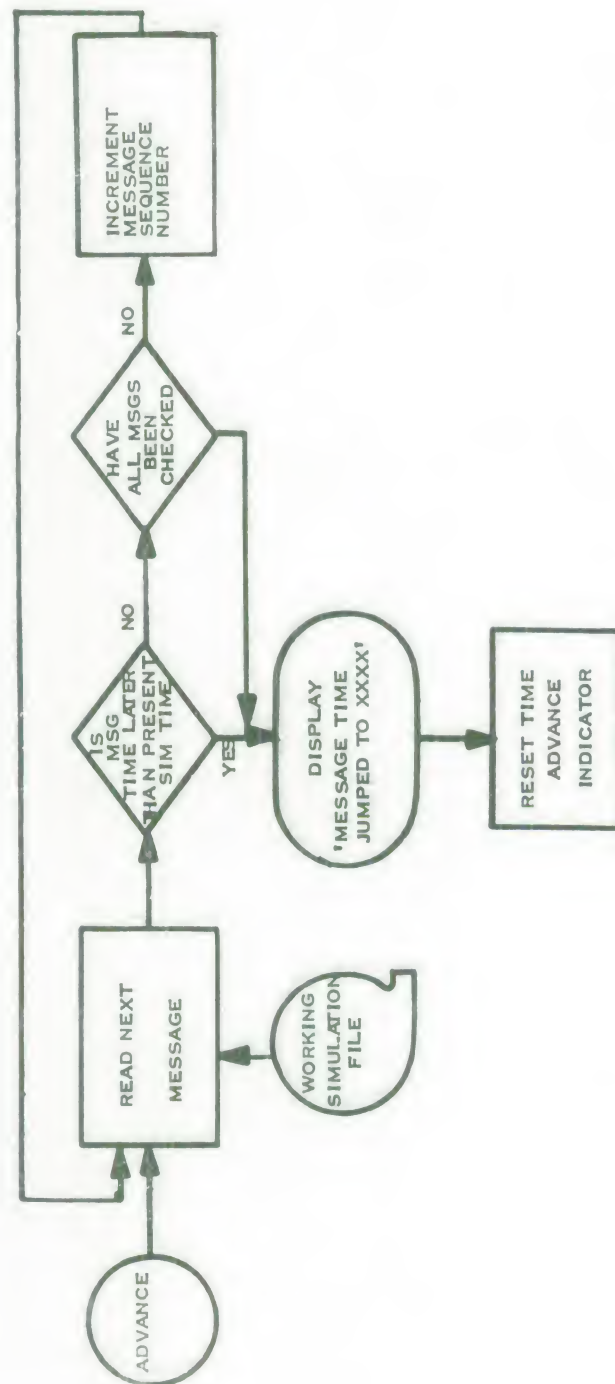


FIGURE 5 (CONT)
INPUT MESSAGE PROCESSING FLOW (ADVANCE)

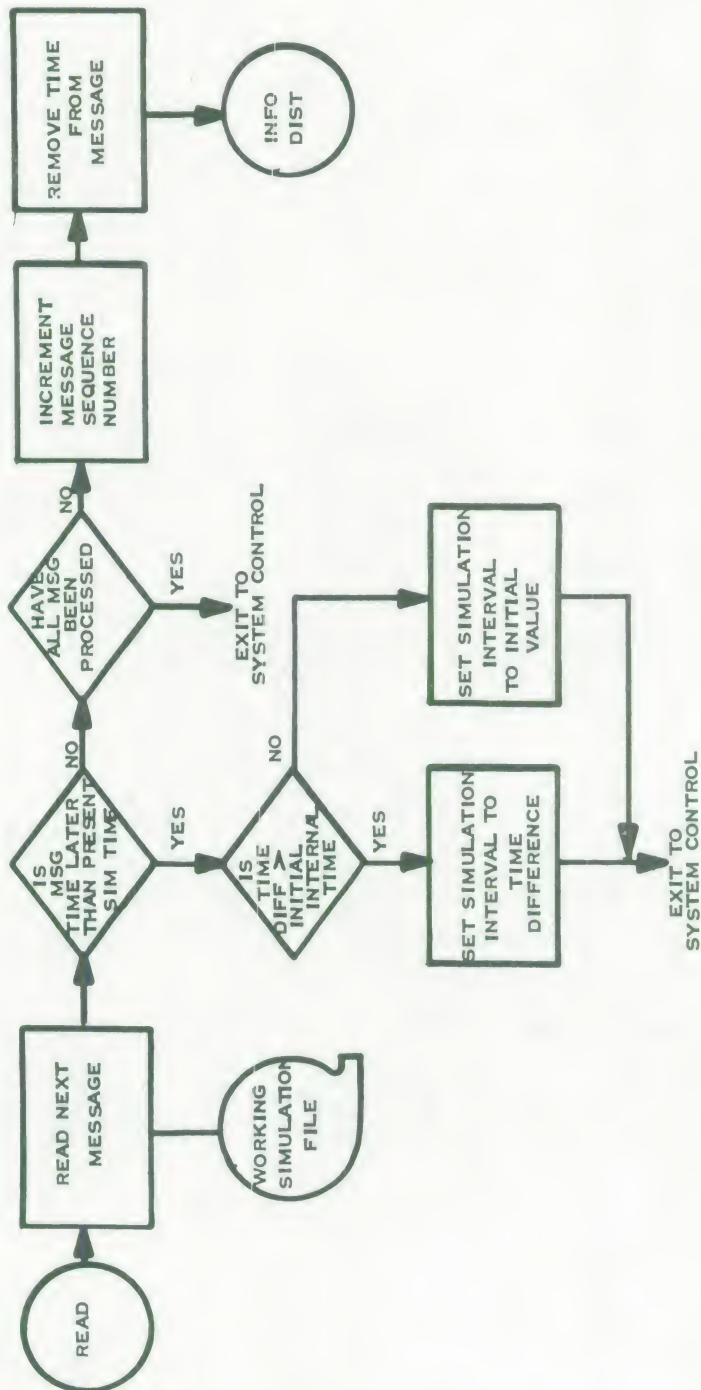


FIGURE 5 (CONT)

INPUT MESSAGE PROCESSING FLOW (READ)

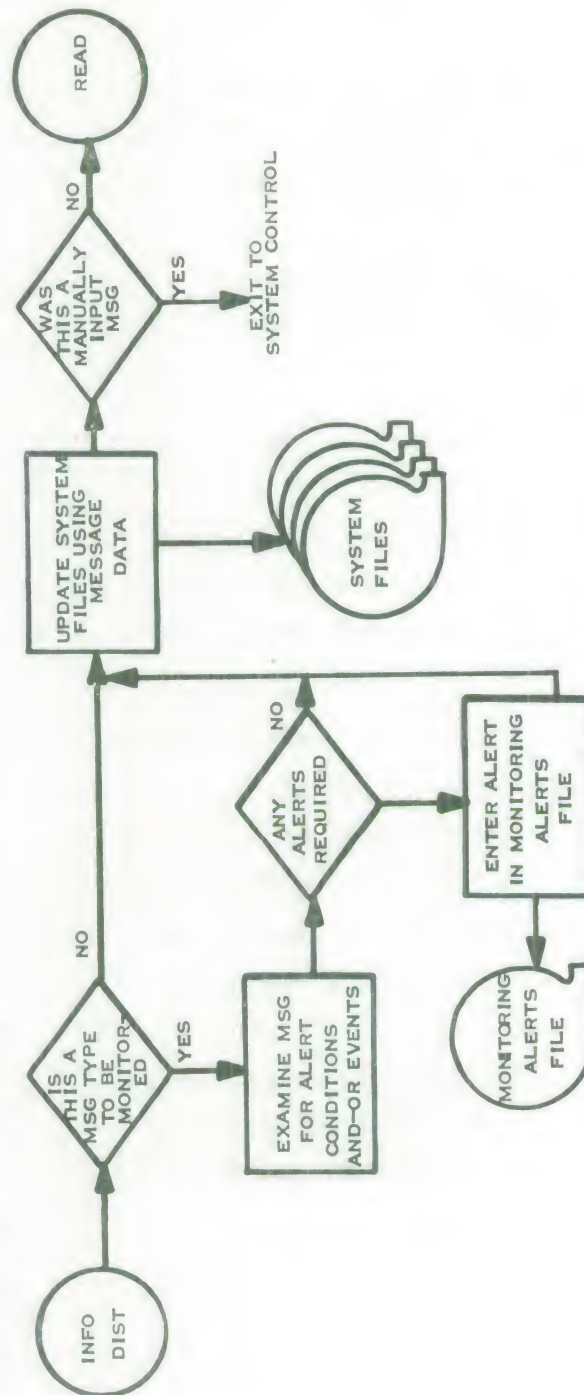


FIGURE 5 (CONT)
INPUT MESSAGE PROCESSING FLOW (INFO DIST)

When called to operate in this mode, the Input Processing Function uses the Message Sequence Number stored after the last reading of the Working Simulation File to access a message in the file. The time of the message is checked against the advanced simulation time. If the message time is not later, the message is ignored, the Message Sequence Number is incremented, and the next message is checked. This procedure of read, time check, and skip is continued until a message time is found which is later than the advanced simulation time or all messages have been processed. In either case, the display

MESSAGE TIME JUMPED TO XXXX (where XXXX is the value
given in the specified SIM TIME)

is presented, the Message Sequence number is stored for use in the next operation of the function, the Time Advance Indicator is reset, and the function exits to System Control.

3.1.2.2.3.2 Input Messages

Input messages can be entered into the system either manually through a user station or automatically by means of the Working Simulation File. Most of the processing performed on the messages is independent of the means of message entry; differences exist only in the preliminary processing required to accept, format, and validate the individual messages.

The format, content, distribution, validity check, and condition monitoring for each message type are identified on the forms associated with the processing description for the individual messages. The heading titles in these forms are interpreted as follows:

- a. Message - this contains the full name of the message.
Column headings under this general title pertain directly to message content.
- b. Data Base - This contains the name or names of files which are updated as a result of data in the message. Where anyone of a group of files can be updated depending on the mission number, a generic set is indicated.
- c. Item No. - the sequence number of the item within the message.
The first item (sender) does not apply to manually input messages.
- d. Item name - self-explanatory.
- e. Coding - this specifies the number and types of characters allowed for the item.
- f. Range or Value - when entered, a value in this column is used in the validity checking of the item on manually input messages. The four letter message identifier is given for each message.
- g. Required - this column is used to identify mandatory fields. Manually input messages are checked to verify that items so tagged contain data.
- h. File Name - the short title of the data base file or files affected by the message. This name is not repeated for each item but is assumed to apply to each subsequent property until a new name is given.
- i. Property Name - the short title of the property in the applicable file which corresponds to the message item and is updated as a result of the message type.
- j. Legality - a check mark in this column indicates that the message item is to be validated for manually input messages. If a Range or Value has been specified, this is used for the check; if not, the item format is verified.

- k. Monitor - a check mark identifies an item/property which is used in message monitoring. A special case is where the Message Identifier is indicated as being monitored. This means that the message type in itself constitutes an alert condition.
- l. Remarks - comments pertinent to the content or processing of message items/file properties are included in this column. Non-obvious item value codings are defined here.

The following sections discuss the differences in preliminary processing between manually and automatically input messages, message monitoring and alert generation, and data distribution. Since these last two overlap in some cases, they are both treated in the section describing the specific processing required for each individual message type.

3.1.2.2.3.2.1 Manually Input Messages

When this function is called by System Control in response to a message being entered via a user station; it performs validation checking on the input data. Specifically, it verifies that all fields which are identified as mandatory do contain data and performs format and/or value checks where required. Fields in each message type which are checked are indicated in the form associated with the message. If an error is detected, a display is presented to the station at which the message originated. The display contains the word "ERROR" followed by the message as entered with the first character of the incorrect field or fields flashing. If no error is detected, message processing is performed as described in section 3.1.2.2.3.2.3.

3.1.2.2.3.2.2 Automatically Input Messages

When the time specified in the Simulation Time Interval has elapsed since the Working Simulation File was last processed, System Control calls the Input Message Processing Function. When initiated to read the Working Simulation File, this function uses the Message Sequence number to access the first message to be processed during this operation. The message time is checked against the present (simulated) time. If the message time is earlier than the present time, it is accepted for further processing: the Message Sequence Number is incremented for use in selecting the next message, and the message is prepared for processing by removing the message time. Message processing is performed as described in section 3.1.2.2.3.2.3.

If the message time is later than the present time, the message is not processed. The difference between the message time and the present time is compared to the initial value of the Simulation Time Interval. If the initial Simulation Time Interval is the greater of the two, the Message Sequence Number is stored for use during the next operation of Input Processing and the function exits to System Control; if the initial Simulation Time Interval is the lesser of the two, the difference between the present time and the message time is stored as the simulation time interval to be used by System Control in scheduling its next call for Input Processing. The Message Sequence Number is then stored and the function exits to System Control.

After each message has been processed, the procedure described above is applied to the next message in the Working Simulation File. This continues until a message does not pass the time check or all messages in the file have been considered.

3.1.2.2.3.2.3 Individual Message Processing

The following paragraphs describe the processing associated with each of the message types recognized by the Input Message Processing Function. Each description is accompanied by a form which defines the message format, content, and data distribution. These forms have been described in section 3.1.2.2.3.2 above. Certain ground rules have been followed in determining the data content and coding of message items, except where noted on the forms:

1. The coding of data items in the messages is the same as the coding used in the corresponding file properties.
2. Base and field designators are in ICAO code.
3. Times are in DTG format (NULL is a legal value).
4. Positions and locations are in lat/long.
5. The first item in each message is "Sender", a 15 character identification of message source. It has no significance in the present system, but has been included as a possible key for message suppression if a mixed live simulated mode of message operation is adopted in the future.

During message processing, this function monitors message content for the reporting of conditions or events which require operator notification in the form of an alert output. When such an event or condition is detected, an entry is made in the Monitoring Alerts File for use by Display Control and Generation. Figure 6 shows the file entries for each alert condition related to an input message, and Figure 7 describes the data provided to the user for each alert type.*

In distributing message data into file properties, message items which are not designated as required are checked for the presence of data before being used for file update - if no data are reported, the item is skipped and the file property remains unchanged.

*Figure 7 contains all alert types including those which result from processing performed in the Condition/Event Monitoring Function, Section 3.1.2.6.

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The following messages are recognized by this function:

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3.1.2.2.3.2.3.1 Abort Report (ABTR)

The mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported.

This message in itself constitutes an alert condition (alert type 6).

MESSAGE				DATA BASE					
Abort Report				Mission Schedule as per Mission Type					
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓					
2	Message Identifier	4 a	ABTR	✓	-FRAG/MSN or -SCHED			✓	
3	Mission Number	12 anc		✓		MSN-NUM	✓		Used as file object
4	Aircraft Callsign	15 anc							Not used in file update
5	Number Aborted	2 n		✓		ABORT-A/C	✓		
6	Landing Time	10 nc				ABORT-LAND	✓		
7	Location	4 a				ABORT-LOC			Airfield designator
8	Reason	5 a		✓		ABORT-REA			Examples: MAINT, WX, OPS

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3.1.2.2.3.2.3.2 Air Defense Fighter Status Report (ADFS)

The unit number is used to access the proper object in the Air Defense Fighter Status File. Since all message items are required, the file object is updated directly by property replacement.

There is no monitoring performed on this message.

MESSAGE					DATA BASE			
Air Defense Fighter Status Report					Air Defense Fighter Status File			
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR
REMARKS/DESCRIPTION								
1	Sender	15 anc		✓				
2	Message Identifier	4 a	ADFS	✓	ADFSRSTAT			
3	Unit	6 an		✓		UNIT		Unit designator, Ex: 615TFS. File object
4	Location	4 a		✓		BASE		Base designator of aircraft location
5	As of time	10 nc		✓		AS-OF-TIME	✓	Effective time of report
6	Type Aircraft	6 anc		✓		A/C-TYPE		Type, model, and series, Ex: F4E
7	2 minutes	2 n		✓		2-MIN	✓	Number of aircraft on 2 minute alert
8	5 minutes TANK	2 n		✓		5-MIN-TANK	✓	Number on 5 minute alert with tanks
9	5 minutes	2 n		✓		5-MIN	✓	Number on 5 minute alert without tanks
10	15 minutes	2 n		✓		15-MIN	✓	Number on 15 minute alert
11	30 minutes	2 n		✓		30-MIN	✓	Number on 30 minute alert
12	1 hour	2 n		✓		1-HOUR	✓	Number on 1 hour alert
13	3 hours	2 n		✓		3-HOUR	✓	Number on 3 hour alert

3.1.2.2.3.2.3.3 Air Defense Scramble Report (ADSM)

The unit number is used to access the proper object in the Air Defense FRAG Order File. The property "SORT-SCRAM" is updated by adding the reported number of sorties to the existing property value and using the sum as the new value.

This message in itself constitutes an alert condition (alert type 5).

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MESSAGE				DATA BASE				
Air Defense Scramble Report				Air Defense FRAG Order				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	ADSM	✓	ADFRAG		✓	
3	Unit	6 anc		✓		UNIT		Unit designator, Ex: 496TFS. File object
4	Number Sorties	2 n		✓		SORT-SCRAM	✓	Existing property value is incremented
5	A/C Type	6 anc		✓				These items are not used in file update
6	Vector	3 n	001-360	✓			✓	
7	Climb/Altitude	15 anc		✓				
8	Control	10 anc		✓				
9	Frequency (pri/sec)	11 anc		✓				
10	Remarks	50 anc						

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3.1.2.2.3.2.3.4 Air Delay Report (ADEL)

Mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported.

This message in itself constitutes an alert condition (alert type 31).

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MESSAGE				DATA BASE					
Air Delay Report			Mission Schedule as per Mission Type						
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUI RED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓					
2	Message Identifier	4 a	ADEL	✓	-FRAG/MSN or -SCHED			✓	
3	Mission Number	12 anc		✓		MSN-NUM			Used as file object
4	Call sign	15 anc							Not used in file update
5	Revised ETOT-1	10 nc				ET00, ETOT, or ETOT-1	✓		ET00 for EW ETOT-1 for PRECCE ETOT for all others
6	Revised ETOT-2	10 nc				ETOT-2	✓		These items apply to PRECCE only
7	Revised ETOT-3	10 nc				ETOT-3	✓		
8	Revised ETOT-4	10 nc				ETOT-4	✓		
9	Revised ETR	10 nc				ETR	✓		
10	Reason	5 a		✓					Ex: OPS, WX. Not used in file update
11	Remarks	50 anc							Not used in file update

3.1.2.2.3.2.3.5 Aircraft in Distress Report (AIDR)

The Search and Rescue Requirements File is searched using the reported mission number to determine whether this mission is already carried in the file. If a mission number match is found, the file properties are updated using reported data and the "Airborne/Ground" indicator is set to "Airborne". If a match is not found, a new object (REQ-NUM) is opened, property values entered using reported data, and the "Airborne/Ground" indicator is set to "Airborne".

The mission number is used to identify the appropriate FRAG Order/Mission Schedule File or Schedule File and to access the proper object in the file. If a file cannot be identified or a matching object located, no further file update is attempted. Note that the inability to find a match does not constitute an error since the reporting of distressed aircraft is not limited to aircraft in missions which are the responsibility of the TACC. If a mission number match is found, the appropriate remarks property is updated using reported data.

This message in itself constitutes an alert condition (alert type 29).

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MESSAGE						DATA BASE			
Aircraft in Distress Report				SAR Requirements File, Mission Schedule as per Mission Type				Page 1 of 1	
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓					
2	Message Identifier	4 a	AIDR	✓	SARREQ	A/B-GRD	✓		Set to "Airborne"
3	Mission Number	12 anc		✓		MSN-NUM			Establish new object (REQ-NUM) if required
4	Call sign	15 anc		✓		C/S			
5	Location	12 anc		✓		LOC			In lat/long
6	Altitude	2 n		✓		ALT	✓		In 1000 ft.
7	Time	10 nc		✓		DIS-DOWN-TI	✓		
8	Heading	3 n	001-360	✓		HEADING	✓		Not used in file update
9	Pattern	10 a							
10	Remarks	50 anc		-FRAG/MSN -SCHD	REMARKS-2 REMARKS				Reported Mission Number is used as file object.

3.1.2.2.3.2.3.6 Airfield and Flight Facility Status Report (AFFS)

The airbase name is used to access the proper object in the Airfield and Flight Facility Status File. File properties are updated using reported data after the following alert condition checks are performed:

- a. If the reported airbase status differs from the file property value, alert type 8 is scheduled.
- b. If airbase ETRO is reported and the reported value differs from the file property value, alert type 9 is scheduled.
- c. If a flight facility status is reported and the reported value differs from the file property value, alert type 10 is scheduled.
- d. If a flight facility ETRO is reported and the reported value differs from the file property value, alert type 11 is scheduled.

Note that the checks for (c.) and (d.) are repeated as required for each reported facility. Separate alerts are scheduled for each facility.

MESSAGE				DATA BASE				
Airfield and Flight Facility Status Report				Airfield and Flight Facility Status File				
				Page 1 of 1				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	AFFS	✓	AFLD/FLTAC			
3	Airbase Name	4 a		✓		BASE		Base designator. Used as file object
4	As of Time	10 nc		✓		AS-OF-TIME	✓	Effective time of report
5	Airbase Status	11 a		✓		BASE-STAT	✓	Operational, Limited, or Closed
6	Reasons	50 an				REA		Reasons for status being Limited or Closed
7	Operational Limitation	20 an				OP-LIMIT		Specific Limitation
8	ETRO	10 nc				ETRO-BASE	✓	Estimated return to operational status
9	Flight Facility	15 anc				FAC-NAME-n		Facility name Ex: MPN-15 M/RAPCON
10	Status	12 a				STATUS-n	✓	Unrestricted, Restricted, Unusable
11	Reason	20 an				REA-n		Reason for Restricted or Unusable
12	Ops Limitation	26 an				OPNL-LIMIT-n		Specific Limitation
13	ETRO	10 nc				ETRO-FAC-n	✓	Estimated return to Unrestricted
								These items repeated as required for up to 8 facilities.

3.1.2.2.3.2.3.7 Air Surveillance Data Report (ASVD)

The track number is used to access the proper object in the Track Data File.

If a track number match cannot be found, a new object is opened and property values entered using reported data. If an object is located (track number match found), the file properties are updated using reported data.

If the report type is "Initial" and the track is hostile class (hostile, unknown, faker, or pending), alert type 37 is scheduled.

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MESSAGE				DATA BASE				
Air Surveillance Data Report				Track Data File				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	REMARKS/DESCRIPTION
							MONITOR	
1	Sender	15 anc		✓				
2	Message Identifier	4 a	ASVD	✓	TRACKDATA			
3	Track Designator	6 anc		✓		TRACK	✓	Track number Used as file object. Open new object if required.
4	Type of Report	1 a	I, A	✓		REPORT	✓	I = Initial, A = Amending
5	Time	4 nc	0001-2400	✓		TIME	✓	Zulu
6	Position	12 anc		✓		TPOS	✓	Lat/long
7	Course	2 a				COURSE	✓	Ex: N, NE, SW, etc.
8	Classification	1 a		*		CLASS	✓	H = Hostile, U = Unknown, K = Faker, P = Pending, E = Emergency, I = Air Defense fighter, V = VIP, S = Special, F = Other
9	Number of Aircraft	2 n				NUM	✓	
10	Altitude	2 n				ALT	✓	In 1000 ft.
11	Speed	3 n				SPD	✓	In 10 kt.
12	Remarks	45 anc				REMARKS		
				*Required only if Type Report = I				

3.1.2.2.3.2.3.8 Cancellation Request (CANX)

This message causes an automatic file update only in the case of immediate missions (ICAS or IRECCE). For planned missions, the message is treated as a request for an operator to delete the mission. For immediate missions, the mission number is used to access the proper object in the Immediate CAS Schedule File or Immediate RECCE Schedule File. The file property "STATUS" is set to "D" for deleted.

This message in itself constitutes an alert condition (alert type 32).

[illegible]

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3.1.2.2.3.2.3.9 Downed Pilot Report (DPRT)

The processing associated with this message is identical to that for Aircraft in Distress Report (AIDR) except that the "Airborne/Ground" indicator is set to "Ground".

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DATA BASE

MESSAGE

Downed Pilot Report		SAR Requirements File, Mission Schedule as per Mission Type				Page 1 of 1		
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	DPRT	✓	SARREQ	A/B-GRD	✓	Set to "Ground"
3	Mission Number	12 anc		✓		MSN-NUM		Establish new object (REQ-NUM) if required
4	Call sign	15 anc		✓		C/S		
5	Time	10 nc		✓		DIS-DOWN-TI	✓	
6	Position	12 anc		✓		LOC		In lat/long
7	Weather	50 anc						Not used in file update
8	Enemy Action	5 an				ENEMY-ACT		None, light, med, or heavy
9	Remarks	50 anc			-FRAG/MSN	REMARKS-2		Reported mission number is used as file object
					-SCHED	REMARKS		

3.1.2.2.3.2.3.10 Ground Delay Report (GDEL)

The mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported.

This message in itself constitutes an alert condition (alert type 30).

MESSAGE				DATA BASE				
Ground Delay Report				Mission Schedule as per Mission Type				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	GDEL	✓	-FRAG/MSN or -SCHED		✓	
3	Mission Number	12 anc		✓		MSN-NUM		Used as file object
4	Callsign	15 anc						Not used in file update
5	Original ETD	10 nc		✓			✓	
6	Revised ETD	10 nc		✓		ETD	✓	
7	Reason	5 a		✓				Not used in file update
8	Remarks	50 anc			-FRAG/MSN -SCHED	REMARKS-2 REMARKS		

3.1.2.2.3.2.3.11 Immediate CAS Scramble Report (ICSM)

The mission number is used to determine whether the mission is already carried in the ICAS Schedule File. If it is, it means that the message is a modification to a previous scramble message. In this case, the update of the number of sorties scrambled as carried in the ICAS FRAG file consists of subtracting the number of sorties currently stored in the ICAS schedule file for this mission from the number reported in the message and adding the difference to the cumulative total in the ICAS FRAG file. If this mission is not already carried, the cumulative total is incremented by adding the number reported to the existing value. In either case, the unit identifier in the mission number is used as the file object for the ICAS FRAG file. If the mission is not carried, a new object is opened in the ICAS schedule file to store the reported data; if it is carried, the file properties are updated using data as reported. The request number is used to access the proper object in the PCAS Request file; if a match is not found, a new object is opened. Message data are entered in the properties associated with the reported mission number or, if the mission number is not found, with the first empty mission number entry.

This report in itself constitutes an alert condition (alert type 3).

MESSAGE				DATA BASE			
Immediate CAS Scramble Report				ICAS FRAG Order, ICAS Mission Schedule, PCAS Request			
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR
1	Sender	15 anc		✓			
2	Message Identifier	4 a	ICSM	✓	ICASSCHED		✓
3	Mission Number	12 anc		✓	PCASREQUEST	MSN-NUM MSN-n	Used as file object If no match, first empty MSN-n is used.
4	Request Number	5 anc		✓	ICASSCHED	REQ-NUM REQ-NUM	Used as file object EX:AA-02
5	Call Sign	15 anc		✓		C/S	
6	Priority	1 n	1-4	✓		PRI	✓
7	Target Time	10 nc		✓	PCASREQUEST	ETOT ETOT-n	✓
8	Number Sorties	2 n		✓	ICASFRAG ICASSCHED	SORT-n SORT-SCRAM SORT	Unit from mission number used as object. Existing property value is incremented.
9	Aircraft Type	6 anc		✓		A/C-TYPE	
10	Target Location-A	12 anc		✓		TGT-LOC-A	Locates a point target or starting point.
11	Target Location-B	12 anc				TGT-LOC-B	When used in conjunction with "A", provides a route; if "AREA" is used, describes a target.
12	Target Location-C	12 anc				TGT-LOC-C	When used in conjunction with "A" and "B", provides a route; if "AREA" is used, describes a target.
13	Target Location-D	12 anc				TGT-LOC-D	When used in conjunction with "A" through "C", provides a route; if "AREA" is used, describes a target.

MESSAGE				DATA BASE			
Immediate CAS Scramble Report				ICAS FRAG Order, ICAS Mission Schedule, PCAS Request			
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	REMARKS/DESCRIPTION
						LEGALITY MONITOR	
14	Target Location-E	12 anc				TGT-LOC-E	When used in conjunction with "A" through "D", provides a route; if "AREA" is used, describes a target.
15	Target Location-F	12 anc				TGT-LOC-F	When used in conjunction with "A" through "E" provides a route; if "AREA" is used, describes a target.
16	Area	15 anc				AREA	When used in conjunction with "A"-F", describes a target area: Oval, Square, Round, etc.
17	Target Elevation	5 n		✓		TGT-ELEV	In feet
18	Target Type	15 anc		✓		TGT-TYPE	
19	Ordnance	4 anc		✓	PCASREQUEST	ORD ORD-n or ORD-n-1	If n=1 use ORD-n; otherwise use ORD-n-1
20	Final Control Callsign	15 anc		✓	ICASSCHED	FIN-CTR-C/S	
21	Final Control Frequency	11 anc		✓		FIN-CTR-FREQ	Primary and secondary frequencies
22	Control Point	12 anc				CON-POINT	Control point coordinates

3.1.2.2.3.2.3.12 Immediate RECCE Scramble Report (IRSM)

The processing logic associated with this message is identical to that for the Immediate CAS Scramble Report (ICSM) except that different files are used. The file correspondence is as follows:

ICSM

ICASSCHED

ICASFRAG

PCASREQUEST

IRSM

IRECSCHED

IRECFRAG

PRECREQUEST

The alert type is 4.

MESSAGE				DATA BASE						
Immediate RECCE Scramble Report				IRECCE FRAG Order, IRECC Mission Schedule, PRECCE Request						
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME		PROPERTY NAME	LEGACY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓						
2	Message Identifier	4 a	IRSM	✓	IRECSCHED					
3	Mission Number	12 anc		✓	PRECREQUEST		MSN-NUM			Used as a file object.
4	Request Number	7 anc		✓	IRECSCHED		MSN-n			If no match, first empty MSN-n is used.
							REQ-NUM			Used as a file object EX: AA-R-02
5	Call sign	15 anc		✓			C/S			
6	Priority	1 n		✓			PRI	✓		
7	Target Time	10 nc		✓	PRECREQUEST		ETOT	✓		
8	Number Sorties	2 n		✓	IREFRAG IRECSCHED		TOT-n SORT-n SORT-SCRAM SORT	✓		Unit from mission number used as object. Existing property value is incremental.
9	Aircraft Type	6 an		✓			A/C-TYPE			
10	Target Location-A	12 anc		✓			TGT-LOC-A			Locates a point target or starting point.
11	Target Location-B	12 anc					TGT-LOC-B			When used in conjunction with "A", provides a route; if "AREA" is used, describes a target.
12	Target Location-C	12 anc					TGT-LOC-C			When used in conjunction with "A" and "B", provides a route; if "AREA" is used, describes a target.
13	Target Location-D	12 anc					TGT-LOC-D			When used in conjunction with "A" through "C", provides a route; if "AREA" is used, describes a target.

MESSAGE				DATA BASE							
Immediate RECCE Scramble Report				IRECCE FRAG Order, IRECCE Mission Schedule, PRECCE Request							
ITEM NO.	ITEM NAME	CODING		RANGE OR VALUE	REQUIRED	FILE NAME		PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
14	Target Location-E	12	anc					TGT-LOC-E			When used in conjunction with "A" through "D", provides a route; if "AREA" is used, describes a target.
15	Target Location-F	12	anc					TGT-LOC-F			When used in conjunction with "A" through "E", provides a route; if "AREA" is used, describes a target.
16	Area	15	anc					AREA			When used in conjunction with "A"- "F", describes a target area: Oval, Square, Round, etc.
17	Target Elevation	5	n		✓			TGT-ELEV			In feet
18	Target Type	15	anc		✓			TGT-TYPE			
19	Type R/S	23	a		✓			TYPE-RECCE			Type of RECCE/Surveillance
20	LTIOV	10	nc					LTIOV			Latest Time Information is of value

3.1.2.2.3.2.3.13 Inflight Report (INFR)

The mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported.

If the reported time differs from the estimated time over target, alert type 21 is scheduled.

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3.1.2.2.3.2.3.14 Joint Tactical Air Request (ACAP)

The Preplanned Close Air Support Request file is searched using the request number. If a match is found, the file properties are updated using the reported data. If a match is not found, a new object is opened and property values entered using message data.

If the request is an "Immediate", alert type 1 is scheduled.

If the request is a "Preplanned", alert type 39 is scheduled.

MESSAGE				DATA BASE					
Joint Tactical Air Request				Preplanned Close Air Support Request File					
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓					
2	Message Identifier	4 a	ACAO	✓	PCASREQUEST				
3	Request Number	5 anc		✓		REQ-NUM			Open new file object
4	Date/Time/Sender	15 anc				TIME-SENDER			DTG/Sender designator
5	Immediate	1 a	A,B,C,D			IMMED	✓	✓	A-Emergency, B-Urgent, C-Ordinary, D-Search/Attack
6	Preplanned	1 a	A,B,C,D,E,F			PREPLAN	✓		A-(Specific TOT), B-Airborne Alert, C-Ground Alert, D-Column Cover, E-ASRT, F-Armed RECON
7	Priority	1 n	1-4	✓		PRI	✓		
8	Tactical Situation	1 a	A,B			TAC-SIT	✓		A-Under Fire, B-No Contact
9	Amount/Type Fire	20 anc				TYPE-FIRE			Heavy (type), Moderate (type), Light (type), None Ex: Moderate-Small Arms
10	Target	15 anc		✓		TGT			A=Pers in open, B=Pers dug in, C=Pers concealed, D=WPNS(MG/RR/AT), E=Mortars, F=Artillery, G=Armor, H=Vehicles, I=Rockets/Missiles, J=Supplies/Equip., K=Center(CP-COMM), L=Buildings, M=Bridges, N=AAA, O=Pill Box, P=Bunker, Q=Other (specify)

MESSAGE				DATA BASE			
Joint Tactical Air Request				Preplanned Close Air Support Request File			
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME		
					PROPERTY NAME	LEGALITY	MONITOR
							REMARKS/DESCRIPTION
11	Target Parameters	8 anc			TGT-PARAM		Approximate target size and strength of the target A=Unknown, B=1, C=2-4, D=5-9, E=10-25, F=25-50, G=50-100, H=100-250, I=250-500, J=500-1000
12	Target Location-A	12 anc		✓	TGT-LOC-A		Locates point target or starting point
13	Target Location-B	12 anc			TGT-LOC-B		When used in conjunction with "A", provides a route; if "AREA" is used, describes a target.
14	Target Location-C	12 anc			TGT-LOC-C		When used in conjunction with "A" and "B", provides a route; if "AREA" is used, describes a target.
15	Target Location-D	12 anc			TGT-LOC-D		When used in conjunction with "A" through "C", provides a route; if "AREA" is used, describes a target.
16	Target Location-E	12 anc			TGT-LOC-E		When used in conjunction with "A" through "D", provides a route; if "AREA" is used, describes a target.
17	Target Location-F	12 anc			TGT-LOC-F		When used in conjunction with "A" through "E", provides a route; if "AREA" is used, describes a target.
18	Chart Number	20 anc			CHART-NUM		
19	Area	15 a			AREA		When used in conjunction with "A"- "F", describes a target area: Oval, Square, Round, etc.

MESSAGE				DATA BASE			
Joint Tactical Air Request				Preplanned Close Air Support Request File			
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	REMARKS/DESCRIPTION
20	Elevation	5 n				ELEVATION	In feet.
21	Target Bears Dist/Bearing/Lndmk	20 anc				TGT-BEAR-DIS	Magnetic bearing and distance from landmark Ex: 275-800-RIVER. Distance in meters
22	Target Mobility	1 a	A, B			TGT-MOB	A-stationary, B-Moving
23	Target Direction/Speed	5 anc				TGT-DIR/SPD	Ex: NW/20
24	Timing	1 a	A, B, C, D, E	✓		TGT-TIME	Requested Strike Time A-ASAP, B-At (DTG-1), C-After (DTG-1), D-NLT (DTG-1), E-Between (DTG-1-DTG-2)
25	First Time	10 nc		✓		DTG-1	
26	Second Time	10 nc				DTG-2	
27	Desired Results	1 a	A, B			DES-RESULTS	A=Destroy, B=Neutralize
28	Recommended Number A/C	2 n		✓		NUM-A/C	
29	Recommended A/C Type	6 anc		✓		A/C-TYPE	
30	Recommended Ordnance	12 an				ORD	A-Bomb, B-Rocket, C-Strafe, D-Napalm, E-Other (spec)
31	Fuzing	4 a				FUZING	
32	Friendly Position Coordinates A	12 anc				FRIEND-POS-A	In lat/long
33	Friendly Position Coordinates B	12 anc				FRIEND-POS-B	In lat/long

MESSAGE				DATA BASE				
Joint Tactical Air Request				Preplanned Close Air Support Request File Page 4 of 4				
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	REMARKS/DESCRIPTION
34	Friendly Position Direction	2 a				FRIEND-DIR		From target. Ex: NE, W, SW, etc.
35	Friendly Position Distance	3 n				FRIEND-DIS		In meters
36	Friendly Position Marking	1 a	A,B,C,D			MARKING	✓	A-Panels, B-Smoke, C-Pyrotechnic, D-Electronic
37	Friendly Position Terrain	6 a				TERRAIN		River, Ridge, Valley, etc.
38	Friendly Position Color Marking	6 a				COLOR-MARKING		1-white, 2-red, 3-green, 4-yellow, 5-other
39	Final Control Callsign	15 anc				FIN-CTR-C/S		
40	Final Control Frequency	11 anc				FIN-CTR-FREQ		Primary/Secondary
41	Control Point	12 anc				CON-POINT		Coordinates in lat/long
42	Location	12 anc				LOC		Coordinates in lat/long
43	Final Control Capability	1 n	1,2			REQ-CON	✓	Requestor will control: 1-Yes, 2-No
44	Attack Heading	3 n				ATTACK-HDG		Magnetic
45	Pullout Direction	1 a	A,B,C			BREAK	✓	A-Left, B-Right, C-Straight
46	Pullout Heading	3 n				MAG-HDG		Off target
47	Minimum Altitude	4 n				MIN-ALT		AGL
48	Remarks	50 anc				REMARKS		

3.1.2.2.3.2.3.15 Joint Tactical Air RECCE/Surveillance Request (ARSQ)

The processing associated with this request is identical to that for the Joint Tactical Air Request (ACAR) except that the updated file is the Preplanned Air Reconnaissance Request File, the alert type for an immediate request is 2, and the alert type for a preplanned request is 40.

MESSAGE				DATA BASE			
Joint Tactical Air RECCE/Surveillance Request				Preplanned Air Reconnaissance Request File			
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQU RED	FILE NAME	PROPERTY NAME	REMARKS/DESCRIPTION
						LEGALITY	MONITOR
1	Sender	15 anc		✓			
2	Message Identifier	4 a	ARSQ	✓	PRECREQUEST		
3	Request Number	7 anc		✓		REQ-NUM	Ex: AA-R-02
4	Target Number	4 an				TGT-NUM	Ex: BT56
5	Type Request	1 a	I,P	✓		TYPE	I=Immediate, P=Preplanned
6	ASAP	3 a		✓		ASAP	Yes or No
7	PCA	2 n				PCA	Number of days previous coverage acceptable
8	LTIOV	10 nc				LTIOV	Latest Time Information is of value
9	Type Recon	23 ac		*		TYPE-RECCE	Any one or combination: A-Visual, B-Photographic, C-Electronic, D-Weather, E-TV, F-Radar Scope, G-SLAR, H-Infrared, I-Laser
10	Photography	11 a				TYPE-PHOTO	A-Strip, B-Area, C-Pinpoint, D-Panoramic High, E-Panoramic Low, F-Vertical, G-Forward Oblique, H-Side Oblique High, I-Side Oblique Low, J-Split Vertical, K-Stereo
11	Film Type	1 a	A,B,C,D			TYPE-FILM	A-Black and White, B-Color, C-Camouflage Detection, D-Infrared
12	Map/Chart Reference	33 anc		*		MAP-CHART	Type/series name or number/sheet number/ edition number/date

MESSAGE					DATA BASE					
Joint Tactical Air RECCE/Surveillance Request					Preplanned Air Reconnaissance Request File					
					Page 2 of 3					
ITEM NO.	ITEM NAME	CODING		RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
13	Target Location-A	12 anc			*		TGT-LOC-A			Locates point target or starting point
14	Target Location-B	12 anc					TGT-LOC-B			When used in conjunction with "A", provides a route; if "AREA" used, describes a target.
15	Target Location-C	12 anc					TGT-LOC-C			When used in conjunction with "A" and "B", provides a route; if "AREA" is used, describes a target.
16	Target Location-D	12 anc					TGT-LOC-D			When used in conjunction with "A" through "C", provides a route; if "AREA" used, describes a target.
17	Target Location-E	12 anc					TGT-LOC-E			When used in conjunction with "A" through "D", provides a route; if "AREA" used, describes a target.
18	Target Location-F	12 anc					TGT-LOC-F			When used in conjunction with "A" through "E", provides a route; if "AREA" used, describes a target.
19	Area	15 anc			*		AREA			When used in conjunction with "A"-F", describes a target area: Oval, Square, Round, etc.
20	Target Categories	34 anc			*		TGT-CAT			A=Airfield, B=Beach, C=BDA, D=Bridge, E=Coastal RECCE, F=Dam/Hydroelectric Plant, G=Electronic Site, H=Ferries and River Crossings, I=Gun Emplacement/Position, J=Harbor and Port Facilities, K=Helicopter Landing Zone, L=Industrial Site, M=Locks, N=Military Fortifications, O=Military/Govt. Control Center, P=Military Installations, Q=Missile Site, R=Pol Facility, S=RR Strip,

MESSAGE				DATA BASE				
Joint Tactical Air RECCE/Surveillance Request				Preplanned Air Reconnaissance Request File Page 3 of 3				
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
21	Target Categories (Cont'd)							T=RR Yard, U=Road Junction, V=Route RECCE, W=Shipping, X=Thermal Power Plant, Y=Troop/Vehicle Activity, Z=Tunnel
22	Specific EEI	25 an				SPEC-EEI		Specific Essential Elements of Information
23	Scale and Limits	20 nc				SCALE		Acceptable Scale and Limits (Des/Max/Min) Ex: 1-500/1-750/1-250
24	Desired Product	24 anc		*		PROD		Any one or combination: A-Intelligence Data, B-Contact Prints, C-Panoramic Prints, D-Negatives, E-Photomap, F-Enlargements, G-Diapositives, H-Mosaic
25	Number of Copies	8 nc				NUM-COPIES		Prints/Plots/Reports Ex: 12/10/12
26	Delivery Time Desired/Latest	21 anc		*		DELIV-TIME		Desired-Latest Acceptable Ex: ASAP-71096/0930 or 71095/0830-71096/1030
27	Priority	1 n	1-4	✓		PRI	✓	
28	Precedence	1 a	A-D	*		PREC	✓	
29	Special Instructions	50 anc				SPEC-INSTR		

*Required in immediate requests only.

3.1.2.2.3.2.3.16 Joint Tactical Air RECCE/Surveillance Inflight
Report (RSIR)

The mission number is used to identify the appropriate file and to access the proper object in that file. If the mission type is immediate, the reported time on target is entered as the actual time on target in the Immediate RECCE Schedule File; if the mission type is not immediate, the reported time on target is entered in the first empty actual time on target property in the Preplanned RECCE FRAG Order/Mission Schedule File.

If the reported time on target differs from the corresponding estimated time on target, alert type 21 is scheduled.

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3.1.2.2.3.2.3.17 Landing Report (LDGR)

The mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported. The file property "STATUS" is set to "C" for completion.

If any aircraft are reported as not returned, alert type 20 is scheduled.

MESSAGE				DATA BASE			
Landing Report				Mission Schedule as per Mission Type			
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	REMARKS/DESCRIPTION
1	Sender	15 anc		✓			
2	Message Identifier	4 a	LDGR	✓	-FRAG/MSN or -SCHED		
3	Mission Number	12 anc		✓		MSN-NUM	Used as file object
4	Callsign	15 anc					Not used in file update
5	Number of A/C	2 n		✓			
6	Time	10 nc		✓		ATR	
7	A/C not Returned	20 anc				A/C-NO-RET NO-RET-C/S	Number not returned Callsign(s)
8	Location	12 anc				LOC-DOWN	Lat/long
9	Reason	15 anc				REA-NO-RET	Ex: AAA, Ground Fire, etc.
						STATUS	Set to "C"

3.1.2.2.3.2.3.18 On-Station Report (ONSR)

The mission number is used to access the proper object in the Refueling Mission Schedule File. The reported time is entered in the file as the actual on-station time and the file property "STATUS" is set to "A" for active.

If the reported time differs from the scheduled time on-station, alert type 35 is scheduled.

MESSAGE				DATA BASE				
On-Station Report				Refueling Mission Schedule				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	ONSR	✓	REFUELSCHED			
3	Mission Number	12 anc		✓		MSN-NUM		Used as file object
4	Call sign	15 anc						
5	Time	10 nc		✓		ACT-ON-STA	✓	
						STATUS		Set to "A"

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3.1.2.2.3.2.3.19 Aircraft in Distress Position Report (PRAD)

The mission number is used to access the proper object in the Search and Rescue Requirements File. File properties are updated using data as reported.

There are no alerts associated with this message.

MESSAGE				DATA BASE				
Aircraft in Distress Position Report				Search and Rescue Requirements				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	
							REMARKS/DESCRIPTION	
1	Sender	15 anc		✓				
2	Message Identifier	4 a	PRAD	✓	SARREQ			
3	Mission Number	12 anc		✓		MSN-NUM		Used to locate object (REQ-NUM)
4	Position	12 anc		✓		CURR-LOC		
5	Time	10 nc		✓		LOC-TI	✓	Time at reported location
6	Altitude	2 n				ALT		In 1000 feet
7	Heading	3 n	001-360			HEADING	✓	
8	Estimated Time able to remain airborne	4 nc				EST-A/B		Hours + minutes Ex: 2+40
9	Anticipated Touchdown Location	12 anc						Lat/long
10	Anticipated Touchdown Field	4 a				EST-T/D		ICAO
								If both reported, field takes precedence.

3.1.2.2.3.2.3.20 Refueling Report (REFR)

The processing associated with this message depends upon the type of report-"missed" or "completion".

a. Missed

The number of the mission scheduled to be refueled is used to identify the appropriate file and to access the proper object. The pre-strike/post-strike indicator in the message is used in determining the amount of fuel which was scheduled for the mission. The tanker mission number is used to access the proper object in the Air Refueling Mission Schedule File. The scheduled amount of fuel previously determined is added to the property "UNSCHED-FUEL" and the sum is entered as the new value for this property. Alert type 33 is scheduled.

b. Completion

There are three refueling situations for which provision is made in the processing of this type of report: refueling scheduled and scheduled tanker used; refueling scheduled but tanker other than scheduled one used; refueling not scheduled. Note that this last case includes extra refuelings.

The files and file objects used in the processing of a refueling completion report are accessed using the following mission numbers:

Refueled mission - the mission number is included in the report.

Scheduled tanker - the mission number of the scheduled tanker is a property in the file entry for the refueled mission.

Actual tanker - this is the tanker mission number included in the report.

The pre-strike/post-strike indicator in the message is used to determine which properties in the refueled mission entry are to be used.

The following processing is performed:

1. The actual fuel property in the refueled mission is checked. If this is not empty, it is replaced with the value of the fuel unloaded as reported, the refueling time is set to the reported time, and the fuel unloaded is subtracted from the unscheduled fuel property for the actual tanker used. The unscheduled fuel check described below is then performed.

If the actual fuel property is empty, the reported fuel unloaded is entered as actual fuel, the reported time is entered as the refueling time, and the mission number of the tanker scheduled for this refueling is checked. If this property is empty, the fuel unloaded is subtracted from the unscheduled fuel property for the actual tanker used. The unscheduled fuel check described below is then performed.

If the scheduled tanker mission number property is not empty, its value is compared to the tanker mission number in the report. If they do not match, the scheduled fuel is added to the unscheduled fuel property for the scheduled tanker and the reported fuel unloaded is subtracted from the unscheduled fuel property for the actual tanker used. The unscheduled fuel check described below is then performed.

If the scheduled and actual tanker mission numbers match, the reported fuel onloaded is subtracted from the scheduled fuel and the difference added to the unscheduled fuel. This value is entered as the unscheduled fuel. The unscheduled fuel check is then performed.

2. After the unscheduled fuel is updated in each of the above cases, it is checked to determine if the tanker is overscheduled. This is indicated by a negative value for unscheduled fuel. In this event, alert type 25 is scheduled.

MESSAGE				DATA BASE				
Refueling Report				Air Refueling Mission Schedule and FRAG/MSN for Refueled Mission				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	REFR	✓	REFUELSCHED			
3	Message Type	1 n	1,2	✓			✓	1=Completion, 2=Missed
4	TK Mission Number	12 anc		✓		MSN-NUM		Mission number of tanker. Used as file object.
5	Call Sign	15 anc						
6	Mission Number	12 anc		✓	-FRAG/MSN	MSN-NUM		Number of mission refueled or of mission which missed refueling. Used as file object.
7	PRE/POST Strike	1 n	1,2	✓			✓	Prestrike/Poststrike indicator 1=Prestrike, 2=Poststrike
8	Refueling Time	10 nc		✓		PRE or POST -FUEL- AT or TI		Actual refueling time if "completion" report. Scheduled refueling time if "missed" report. Not updated if "missed".
9	Fuel Onloaded	5 n		*		PRE-FUEL or POST-FUEL		DNA if report type is "missed".
					REFUELSCHED	UNSCHED-FUEL		Unscheduled fuel updated as follows: 1. "Missed" report Scheduled fuel added to unscheduled 2. "Completion" report a. Scheduled refueling, scheduled tanker - unscheduled fuel updated using difference between scheduled and actual fuels. b. Scheduled refueling, wrong tanker - actual subtracted from unscheduled for scheduled tanker.

* Required only if message type
is "completion".

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MESSAGE			DATA BASE					
Refueling Report			Air Refueling Mission Schedule and FRAG/MSN for Refueled Mission					
ITEM NO.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
9	Fuel Onloaded (Cont'd)							c. Unscheduled refueling - actual subtracted from unscheduled for tanker used.

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3.1.2.2.3.2.3.21 SAR Position Report (SMPR)

The mission number is used to access the proper object in the Search and Rescue FRAG Order/Mission Schedule File. File properties are updated using data as reported.

There is no monitoring associated with this message.

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MESSAGE					DATA BASE					
SAR Position Report					Search and Rescue FRAG Order/Mission Schedule					
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME		LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓						
2	Message Identifier	4 a	SMPR	✓	SARFRAG/MSN					
3	Mission Number	12 anc		✓		MSN-NUM				Used as file object
4	Callsign	15 anc								
5	Aircraft Type	6 anc								
6	Position	12 anc		✓		SAR-LOC				
7	Time	10 nc		✓		SAR-LOC-TI				Time at reported position

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3.1.2.2.3.2.3.22 SAR Progress Report (SMRR)

The mission number is used to access the proper object in the Search and Rescue FRAG Order/Mission Schedule File. The reported SAR requirement number is used to access the proper object in the Search and Rescue Requirements File. Properties in these files are updated using data as reported.

This message in itself constitutes an alert condition (alert type 34).

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MESSAGE					DATA BASE						
SAR Progress Report					SAR FRAG/Mission Schedule, SAR Requirements						
Page 1 of 1											
Item No.	ITEM NAME	CODING		RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME		LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15	anc		✓						
2	Message Identifier	4	a	SMRR	✓	SARFRAG/MSN			✓		
3	Mission Number	12	anc		✓		MSN-NUM				Used as file object
4	Requirement Number	5	an		✓	SARREQ	REQ-NUM				Used as file object. Ex: SAR12
5	Enemy Action	5	anc				ENEMY-ACT				None, light, med., heavy
6	Condition of damaged aircraft	50	anc				COND-A/C				
7	Condition of Pilot/Crew	50	anc				COND-CREW				
8	Estimated Results	50	anc			SARFRAG/MSN	REMARKS-2				Both should not be in the same report. Results take precedence over estimated results.
9	Results	50	anc				REMARKS-2				
10	Estimated time of completion	10	nc				EST-INT-PIC	✓			Intercept or Pickup
11	Time of completion	10	nc				ACT-INT-PIC	✓			
12	ETR	10	nc				ETR	✓			Estimated time of return to base or orbit.

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3.1.2.2.3.2.3.23 TACS Facility Status Report (TFAS)

The facility name is used to access the proper object in the TACS Facility Status File. File properties are updated using data as reported.

This message in itself constitutes an alert condition (alert type 7).

MESSAGE				DATA BASE					
TACS Facility Status Report				TACS Facility Status					
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓					
2	Message Identifier	4 a	TFAS	✓	TACS FACSTAT			✓	
3	Facility	6 anc		✓		FAC			Facility identifier
4	As of Time	10 nc		✓		AS-OF-TIME	✓		Effective time of report
5	Type-Report	4 anc		✓		TYPE-REPORT			Type (I=Initial, A=Amending, O=Operational) and serial number of the report. Ex: A-04
6	Item/Cause	4 ac				ITEM/CAUSE-n			This item and ETR0 repeated up to four times as required. Item Cause S-Search A-Acceptance check H-Height B-Breakdown CD-Control&Display C-Calibration PG-Power Generator D-Depot Maint. LC-Lateral or Local E-Equipment Mode Communications G-Power or Generator I-IFF/SIF I-Phase in Equip. AG-Air/Ground Com M-Scheduled Maint. OC-Ops. Com. N-Deployment O-Phaseout Equip. P-ROCP R-Radiation Hazard T-Testing or Peaking W-Weather X-Amplifying Report to follow
7	ETRO	10 nc				ETRO-n	✓		Required if item/cause reported
8	Remarks	50 anc				REMARKS			

3.1.2.2.3.2.3.24 Tactical Action Data Report (TAAD)

The Tactical Action Data File is searched using the reported track designator to determine whether this track is already being carried. If a match is found, file properties are updated using data as reported; if a match is not found, a new object is opened and property values entered using reported data.

This message in itself constitutes an alert condition (type 38).

MESSAGE				Tactical Action Data				DATA BASE		Page 1 of 2	
Tactical Action Data Report				Tactical Action Data				DATA BASE		Page 1 of 2	
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY	MONITOR	REMARKS/DESCRIPTION		
1	Sender	15 anc		✓							
2	Message Identifier	4 a	TAAD	✓	TACTACTDATA			✓			
3	Track Designator	6 anc		✓		TRACK	✓		Used as file object		
4	Type of Report	1 a	A,R	✓		REPORT	✓		A=Action, R=Results		
5	Action/Time	25 anc				TACTACT/TIME			Number/type/callsign of weapon committed or reason for no weapon. Reasons: AD-Action Deference, OR-out of range, NF-No fighter suitable location, WX-Weather, NR-No scramble required. Time in Zulu		
6	Results/Time	12 anc				RESULT/TIME			Results: IR-Target recognition, IPI-identified prior to intercept, SP-Splash, DI-Diversion, MA-Mission accomplished, MR-Missed recognition, MI-Missed intercept If results=MR, enter reason: WX-Weather, DK-darkness If results=MI, enter reason: LS-late scramble, ABT-abort, WX-weather, ECM-electronic countermeasure, DK-darkness, ACP-aircraft performance, PE-pilot error, GEF-ground equipment failure, CE-Controller error, AEF-airborne equipment failure, FPI-fade prior to intercept, LC-late commitment.		

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3.1.2.2.3.2.3.25 Tactical Unit Status Report (TAUS)

The unit name is used to access the proper object in the Tactical Unit Status File. File properties are updated using reported data after the following alert condition checks are performed.

- a. If limiting factors are reported, alert type 12 is scheduled.
- b. If the reported as-of-time is 8 hours later than the stored as-of-time and the reported number of aircraft/aircrews OR differs from the old 8 hour forecast, alert type 13 is scheduled.
- c. If the reported 24 hour forecast of OR aircraft differs from the old 24 hour forecast, alert type 14 is scheduled.

MESSAGE				DATA BASE				
Tactical Unit Status Report				Tactical Unit Status				
Item No.	ITEM NAME	CODING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR	REMARKS/DESCRIPTION
1	Sender	15 anc		✓				
2	Message Identifier	4 a	TAUS	✓	TACUNITSTAT			
3	Unit	6 an		✓		UNIT		Used as file object. Ex: 615TFS
4	Location	4 a		✓		BASE		Base designator
5	As of Time	10 nc		✓		AS-OF-TIME	✓	Effective time of report
6	Type Aircraft	6 anc		✓		A/C-TYPE-n	✓	This and following items are repeated as required for each aircraft type reported. Maximum of 2 aircraft types.
7	Number of aircraft assigned	2 nc				A/C-ASGD-n	✓	
8	Number of aircrews assigned	2 nc				ACREW-ASGD-n	✓	
9	Number of aircraft possessed	2 nc				A/C-POSS-n	✓	
10	Number of aircrews possessed	2nc				ACREW-POSS-n	✓	
11	Number of aircraft operationally ready	2 nc				A/C-OR-n	✓	
12	Number of aircrews operationally ready	2 nc				ACREW-OR-n	✓	
13	Number of aircraft committed	2 nc				A/C-COMM-n	✓	
14	Number of aircrews committed	2 nc				ACREW-COMM-n	✓	

3.1.2.2.3.2.3.26 Takeoff Report (TKOR)

The mission number is used to identify the appropriate file and to access the proper object in that file. File properties are updated using data as reported after performing the estimated time on target check described below.

The following checks for alert conditions are performed:

- a. If the number of aircraft reported airborne differs from the number reported as scheduled, alert type 17 is scheduled.
- b. If the reported departure time differs from the estimated departure time, alert type 18 is scheduled.
- c. If the reported estimated time on target differs from the original estimate, alert type 19 is scheduled. Note that this check is performed only on the first target where multiple targets are reported (Preplanned RECCE). This check is not performed for SAR missions.

MESSAGE				DATA BASE			
Takeoff Report				Mission Schedule as per Mission Type			
Item No.	ITEM NAME	COING	RANGE OR VALUE	REQUIRED	FILE NAME	PROPERTY NAME	LEGALITY MONITOR
1	Sender	15 anc		✓			
2	Message Identifier	4 a	TKOR	✓	-FRAG/MSN or -SCHED		
3	Mission Number	12 anc		✓		MSN-NUM	Used as file object
4	Call sign	15 anc					Not used in file update
5	Number Scheduled	2 n		✓			Number scheduled compared to number airborne
6	Number Airborne	2 n		✓		A/C-A/B	
7	Takeoff Time	10 nc		✓		ATD	Departure time
8	ETOT-1	10 nc		✓		ET00, ETOT, or ETOT-1	ET00 for EW ETOT-1 for PRECCE ETOT for all others except SAR. DNA for SAR
9	ETOT-2	10 nc				ETOT-2	These items apply to PRECCE only
10	ETOT-3	10 nc				ETOT-3	
11	ETOT-4	10 nc				ETOT-4	
12	ETR	10 nc		✓		ETR	Estimated return time
						STATUS	Set to "A"

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MONITORING ALERTS FILE						
MESSAGE	ALERT-NUM	OBJECT-ID	TO	VAR-1	VAR-2	VAR-3
ABTR	6	MSN-NUM	Note 1			
ADEL	31	MSN-NUM	Note 1	ETR or ETOT	old time	new time
ADFS	--					
ADSM	5	UNIT	AIRDEF			
AFFS	8	BASE	AIRDEF	old status	new status	
	9	BASE	AIRDEF	old ETR0	new ETR0	
	10	BASE	AIRDEF	old status	new status	facility name
	11	BASE	AIRDEF	old ETR0	new ETR0	facility name
ACAAQ	1	REQ-NUM	ICAS			
	39	REQ-NUM	PCAS			
AIDR	29	REQ-NUM	SAR			
ARSQ	2	REQ-NUM	I REC			
	40	REQ-NUM	PREC			
ASVD	37	TRACK	AIRDEF	class		
CANX	32	MSN-NUM	Note 1			
DPRT	29	REQ-NUM	SAR			

Figure 6 Monitoring Alerts File

MONITORING ALERTS FILE							
MESSAGE	ALERT-NUM	OBJECT-ID	TO	VAR-1	VAR-2	VAR-3	
GDEL	30	MSN-NUM	Note 1	old ETD	new ETD		
ICSM	3	MSN-NUM	ICAS				
INFR	21	MSN-NUM	Note 1	ETOT	ATOT		
IRSM	4	MSN-NUM	IREC				
LDGR	20	MSN-NUM	Note 1				
ONSR	35	MSN-NUM	TANKER	SCHED-ON-STA	ACT-ON-STA		
PRAD	--						
REFR	25	MSN-NUM	TANKER	UNSCHED-FUEL			
	33	MSN-NUM	Note 1	MSN-NUM (scheduled)	scheduled time		
RSIR	36	MSN-NUM	Note 1	ETOT-n	ATOT-n		
SMPR	--						
SMRR	34	MSN-NUM	SAR				
TAAD	38	TRACK	AIRDEF				
TFAS	7	FAC	AIRDEF				
TAUS	12	UNIT	Note 2	LIM-FAC-n	ACFT-OR-8/ ACREW-OR-8-n	Type aircraft-n	

Figure 6 (Cont'd)

MONITORING ALERTS FILE						
MESSAGE	ALERT-NUM	OBJECT-ID	TO	VAR-1	VAR-2	VAR-3
	13	UNIT	Note 2	old 8 hour OR-n	current OR-n	Type aircraft-n
	14	UNIT	Note 2	old 24 hour OR-n	current 24 hour OR-n	Type aircraft-n
TKOR	17	MSN-NUM	Note 1	SORT	ACFT-AB	
	18	MSN-NUM	Note 1	ETD	ATD	
	19	MSN-NUM	Note 1	old ETOT	new ETOT	

Note 1 The functional address is a function of mission type:

Interdiction/Counter Air

- INT/CA
- ICAS
- PCAS

Air Defense

- AIRDEF
- IRECE
- PRECCE
- EW

Escort

- INT/CA
- CAP
- SAR

Note 2 The functional address is a function of unit type:

Fighter

- AIRDEF

RECCE

- IREC

Refueling

- TANKER

Search and Rescue

- SAR

Figure 6 (Cont'd)

ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
1	Immediate TAC Air Request	Immediate TAC Air Request	REQ-NUM	ICAS	Total message is printed
2	Immediate TAC Air RECCE/Surveillance Request	Immediate TAC Air RECCE/Surveillance Request	REQ-NUM	IREC	Total message is printed
3	ICAS Scramble Report	ICAS Scramble	MSN-NUM	ICAS	Total message is printed
4	IREC Scramble Report	IREC Scramble	MSN-NUM	IREC	Total message is printed
5	Air Defense Scramble Report	Air Defense Scramble	MSN-NUM	AIRDEF	Total message is printed
6	Abort Report	Abort	MSN-NUM	Note 1	An appropriate Mission Display will be presented.
7	TACS Facility Status Report	TACS Facility Status Change	FAC	AIRDEF	Total report is printed
8	Airbase Status Change	Airbase Status change old status ----- new status -----	BASE	AIRDEF	
9	Change in ETRO for Base	Base ETRO old ----- new -----	BASE	AIRDEF	

Figure 7 Alert Definition

ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
10	Flight Facility Status Change	Facility Status Change name ----- old status ----- new status -----	BASE	AIRDEF	
11	Change in ETRO for Facility	Facility ETRO name ----- old ETRO ----- new ETRO -----	BASE	AIRDEF	
12	TAC Unit OR 8 Hour Below Minimum	OR 8 Hour Below Minimum Type ----- OR 8 ----- LIMFAC -----	UNIT	Note 2	
13	TAC Unit OR Change from 8 Hour Forecast	OR Different from Forecast Type ----- OR ----- Forecast -----	UNIT	Note 2	
14	TAC Unit OR 24 Hour Change	24 Hour OR change Type ----- old ----- new -----	UNIT	Note 2	
15	No TAC Unit Status Report Received	No Unit Status Report Time Due -----	UNIT	Note 2	
16	No Airfield and Flight Facility Status Report Received	No Airfield and Flight Facility Status Message Time Due -----	BASE	AIRDEF	
17	Number of Aircraft Airborne differs from number scheduled	Number of Aircraft Airborne scheduled ----- reported -----	MSN-NUM	Note 1	

Figure 7 (Cont'd)

ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
18	Reported Takeoff Time differs from Scheduled Time	Mission Departure scheduled ----- reported -----	MSN-NUM	Note 1	
19	Reported Estimated Time over Target Differs from Old Estimated Time	Time over Target old ETOT ----- new ETOT -----	MSN-NUM	Note 1	
20	Non-Returned Aircraft	Landing Report	MSN-NUM	Note 1	Total Message is printed
21	Reported Time over Target Differs from Estimated Time	Time over Target scheduled ----- reported -----	MSN-NUM	Note 1	
22	Takeoff Report not Received	No Takeoff Report Scheduled Departure Time -----	MSN-NUM	Note 1	
23	Inflight Report Not Received	No Inflight Report Scheduled Time over Target -----	MSN-NUM	Note 1	
24	Landing Report not Received	No Landing Report Estimated Time of Return -----	MSN-NUM	Note 1	
25	Overscheduled Tanker	Tanker Overscheduled Fuel Reserve -----	MSN-NUM	TANKER	
26	Overdue Search and Rescue Report	Late SAR Mission Progress Report Estimated Intercept/Pickup Time -----	MSN-NUM	SAR	

Figure 7 (Cont'd)

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ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
27	On Station Report not Received	No On Station Report Estimated Time On Station ---	MSN-NUM	TANKER	
28	No Air Defense Fighter Status Report Received	No Air Defense Fighter Status Report Time Due -----	UNIT	AIRDEF	
29	Search and Rescue Requirement	SAR Requirement	REQ-NUM	SAR	Downed Pilot or Aircraft in Distress Report Printed
30	Ground Delay Message Received	Ground Delay old Departure Time ----- new Departure Time -----	MSN-NUM	Note 1	Total message is printed
31	Air Delay Report Received	Air Delay old ETOT or ETR ----- new ETOT or ETR -----	MSN-NUM	Note 1	Total message is printed
32	Cancellation Request Received	Cancellation Request	MSN-NUM	Note 1	An appropriate Mission Display will be presented
33	Missed Refueling	Missed Refueling Scheduled Refueling Time --- Scheduled Mission Number ---	MSN-NUM	Note 1	Total message is printed
34	SAR Progress Report Received	SAR Progress	MSN-NUM	SAR	Total message is printed
35	Tanker On Station Time Different from Schedule	Tanker On Station Scheduled time ----- Reported Time -----	MSN-NUM	TANKER	

Figure 7 (Cont'd)

ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
36	RECCE Inflight Report not Received	No RECCE Inflight Report Scheduled Time over Target--	MSN-NUM	Note 1	
37	Hostile Class Track Reported	Initial Report Hostile Class Classification -----	TRACK	AIRDEF	Total message is printed
38	Tactical Action Data Reported	TAC Action Report	TRACK	AIRDEF	Total message is printed
39	Preplanned TAC Air Request	Preplanned TAC Air Request	REQ-NUM	PCAS	
40	Preplanned TAC Air RECCE/Surveillance Request	Preplanned TAC Air RECCE/Surveillance Request	REQ-NUM	PREC	
<p>Note 1 The functional address is a function of mission type:</p> <p>Interdiction/Counter Air</p> <ul style="list-style-type: none"> - INT/CA - ICAS - PCAS - AIRDEF - IREC - PREC - EW - INT/CA - INT/CA - SAR <p>Note 2 The functional address is a function of unit type:</p> <p>Fighter</p> <ul style="list-style-type: none"> - AIRDEF - IREC - TANKER - SAR <p>RECCE</p> <p>Refueling</p> <p>Search and Rescue</p>					

Figure 7 (Cont'd)

3.1.2.3 Current Plans

The Current Plans activity is primarily responsible for producing the FRAG Order which establishes the tasks to be performed in satisfying the operational requirements based on command guidance and available resources. This activity involves the review, structuring and production of various system files which are subsequently used by Current Operations. The primary output of Current Planning is the daily FRAG Order which defines the missions to be flown by the operational units.

Since no direct software support to Current Plans is provided in this system, the assumption is made that this activity has already been performed when the system is initialized. The data base is therefore prestructured to represent its state following the completion of the planning activity for the current day's operations. The purpose of this section is to identify the files which are used by Current Operations as they would have been structured or produced by Current Plans had this activity been performed. These files are defined in detail in Section 3.1.3.

The FRAG Order Files, the Refueling Schedule File, and the Unit Mission Files are produced by the Resource/Requirements Matching portion of the Current Plans activity and are subject to modification in the FRAG Review portion. The other files discussed result from Planning Initialization.

3.1.2.3.1 Air Defense FRAG Order

This file contains the allocation of aircraft to air defense missions by unit. The data is that which is sent in the FRAG Order. The assignment of individual air defense missions is not performed at the TACC.

3.1.2.3.2 Command Guidance

The Command Guidance File contains the allocation of the fighter and reconnaissance aircraft to the various mission types. Allocation is in terms of percentage of total force and represents the general guidance used in the development of mission assignments.

3.1.2.3.3 Electronic Warfare FRAG Order/Mission Schedule

This file contains the electronic warfare missions which have been assigned and tasked in the FRAG order. The data content for each mission is the data included in the FRAG order.

3.1.2.3.4 Fighter Assignment

The number of fighter sorties allocated to each type of fighter mission and the total number assigned are given in this file. A separate entry is provided for each fighter unit.

3.1.2.3.5 Immediate Close Air Support FRAG Order

This file contains the allocation of sorties to ICAS missions by unit. The data is that which is sent in the FRAG order. The assignment of individual "immediate" missions is not performed by the TACC personnel in this system.

3.1.2.3.6 Immediate Reconnaissance FRAG Order

This file and its use is similar to the Immediate Close Air Support FRAG Order File (3.1.2.3.5).

3.1.2.3.7 Preplanned Close Air Support Request

Current Plans orders this file by priority and adds to it recommended criteria for assignment of missions and identification of missions which are made.

3.1.2.3.8 Preplanned Fighter FRAG Order/Mission Schedule

This file is produced by Current Plans and contains all the fighter missions which have been assigned and tasked in the FRAG Order. The data content for each mission is the data included in the FRAG Order.

3.1.2.3.9 Preplanned Reconnaissance FRAG Order/Mission Schedule

This file is similar to the Preplanned Fighter FRAG Order/Mission Schedule File (3.1.2.3.8).

3.1.2.3.10 Preplanned Air Reconnaissance Request

Current Plans order this file in logical groupings based on priority, type of reconnaissance required and geographical references to aid in the assignment of multiple requests to single missions. It adds the identification of missions assigned to the request.

3.1.2.3.11 Reconnaissance/Electronic Warfare Assignment

This file gives the numbers of reconnaissance and electronic warfare sorties allocated to the composite RECCE squadron. It is produced by Current Plans.

3.1.2.3.12 Air Refueling Mission Schedule

Current Plans produces this schedule to give the refueling capability of each tanker mission. It contains information on what missions are to be refueled, when the tanker is to be on station, and fuel on board which has not been scheduled for use.

3.1.2.3.13 Search and Rescue FRAG Order/Mission Schedule

This file gives the alert assignments for each SAR mission which has been scheduled. This assignment is based on anticipated need and not on any specific requirements. Commitment of SAR missions against requirements is performed by Current Operations.

3.1.2.3.14 Target

The Target File is priority ordered by the Planning activity. This activity also adds to each target, as appropriate, recommended assignment criteria and the identification of missions assigned against it.

3.1.2.3.15 Unit Planning

The Unit Planning File contains data required for the scheduling of missions from the operating units. It provides, by aircraft type, the number of sorties available at both the unit's home base and a dispersal base, the base locations, the unit call sign, and the sequence numbers to be used in the assignment of mission numbers.

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3.1.2.3.16 Unit Mission

These files provide a summary of missions assigned to each unit. For each mission, the number and type of aircraft, the ETD and ETR, and originating base are included.

3.1.2.4 Mission Adjustment Function

The Mission Adjustment Function provides a mission adjustment capability for support of Current Operations. This capability includes:

1. The ability to adjust a planned mission to satisfy an immediate requirement. Specifically, Alert CAS and RECCE sorties, Preplanned CAS, Preplanned RECCE, Interdiction and Counter Air Missions can be reassigned to satisfy immediate CAS, RECCE, Interdiction and Counter Air Requirements.
2. The ability to plan a mission to satisfy an immediate CAS, RECCE, Interdiction, Counter Air, CAP, Escort and EW requirement.
3. The ability to add a RECCE requirement to a Preplanned RECCE Mission.
4. The ability to delete Preplanned CAS, Preplanned RECCE, Interdiction, Counter Air, CAP, Escort and EW Missions.
5. The ability to utilize existing tanker resources when planning or adjusting a mission.
6. The ability to present candidate missions that can be adjusted to satisfy a CAS, RECCE, Interdiction or Counter Air requirement.
7. The ability to present candidate CAS, RECCE, Interdiction or Counter Air requirements that can be satisfied by a resource, ie. available Fighter or RECCE sorties.
8. The ability to assign a SAR Mission to a SAR Requirement.

This capability is provided by the Mission Adjustment Functional processes. These processes are operated under the control of the System Control Function in response to specific operator actions which identify the process(s) to be utilized. Many of these processes communicate with the Message Preparation Function to indicate that a Mission Adjustment message should be transmitted

and all interact with the Display Control and Generation Function to provide Mission Adjustment displays. The Mission Adjustment processes are summarized below and described in detail by individual processing step in Section 3.1.2.4.3 Information Processing.

1. Display Request Processing

This process is initiated by an operator action requesting a Mission Adjustment Data Entry Display (DED). The process will present the DED to the operator who then may use the DED to initiate other Mission Adjustment processes. The DED's that are available from this process include:

- a. Candidate Target Requirements Selection
- b. Candidate CAS Requirements Selection
- c. Candidate RECCE Requirements Selection
- d. Candidate Fighter Missions Selection
- e. Candidate RECCE Missions Selection
- f. Candidate Fighter Mission Schedule Display Request
- g. Candidate RECCE Mission Schedule Display Request
- h. Fighter Planning/Adjustment
- i. RECCE Planning/Adjustment
- j. Support Mission Planning
- k. SAR Assignment

The operator may request a Fighter Planning/Adjustment DED specifying a Mission Number, Target Number or Request Number; or he may request a RECCE Planning/Adjustment DED specifying a Mission Number. When this type of Request is input to the process, the process will retrieve the specified data from the Data Base Files and present it to the operator using the DED form.

2. Candidate Requirement Selection

The Candidate Requirements Selection process is initiated using the Candidate Requirements Selection DEDS. This process will develop a display of requirements based upon the selection criteria values input to the process. The process is normally used when an operator has an available resource and desires a display of unassigned requirements which may be satisfied by the available resource.

3. Candidate Mission Selection

The Candidate Mission Selection process is initiated by an operator action which utilizes the Candidate Mission Selection DEDS. This process is used to identify missions which may be adjusted to satisfy a new requirement. This process will generate display pages based on the number of candidate missions that pass the selection criteria input by the operation, each page will contain up to 10 missions. If one of the values specified by the operator is a Target or Request Number, the process will call the Route Generation Process to obtain route and refueling data and develop a Candidate Fighter or RECCE Mission Schedule Display of up to two missions that can satisfy the new requirement.

If the operator action is a request for a Candidate Fighter or RECCE Mission Schedule Display both a mission and a Target or Request Number will be specified by the action. The process will call Route Generation and determine if the mission may be adjusted to satisfy the new requirement. If it can be adjusted, the process will develop a detailed schedule display for the new requirement.

4. Fighter Planning/Adjustment

The Fighter Planning/Adjustment process provides the capability to plan or adjust a Preplanned CAS, Interdiction or Counter Air Mission or to utilize Alert CAS sorties in the planning of these missions. The operator inputs to this process are specified using the Fighter Planning/Adjustment DED. The process will generate a new Frag Order entry for the planned or adjusted mission based upon these inputs. It will utilize the Route Generation process to develop mission route data, refueling data and schedule refueling as required. If the process is adjusting a mission or using alert sorties to plan a mission, it will call the Mission Deletion Process to delete the adjusted mission's old Frag Order entry or to decrement the number of alert sorties available for Immediate CAS Missions.

5. RECCE Planning/Adjustment

The RECCE Planning/Adjustment process will plan or adjust a Preplanned RECCE Mission to satisfy up to four RECCE Requirements. This process

may utilize Alert RECCE sorties in the planning of a RECCE Mission. The operator inputs to the process are specified using the RECCE Planning/Adjustment DED. The process will generate a new Frag Order entry for the planned or adjusted mission based upon the inputs. It will utilize the Route Generation Process and the Mission Delete Process in the same manner as described for the Fighter Planning/Adjustment Process above.

6. Support Mission Planning

The Support Mission Planning process is initiated using the Support Mission Planning DED. This process will plan an Escort, CAP or EW Mission depending upon the values input in the operator action. The operator may specify up to five supported missions for a CAP or EW Mission that is not acting in an escort capacity and one supported mission for an Escort or EW Mission which is to escort a mission. The process will utilize the Route Generation process to develop mission route data, refueling data and schedule refueling as required.

7. Mission Deletion

The Mission Deletion process will delete a Preplanned CAS, Preplanned RECCE, Interdiction, Counter Air, CAP, Escort or EW Mission in response to a Mission Deletion operator action. This process will eliminate references to the mission in all system files with the exception of the mission's Frag Order entry. The Frag Order entry will be modified to reflect that the mission has been deleted. This is done to provide an input to the Message Preparation Function and to maintain a record of all missions. The Mission Deletion process is also initiated by the Fighter or RECCE Planning/Adjustment process. When either of these processes initiates the Deletion process, it will delete a mission or decrement the number of alert sorties available for Immediate CAS or Immediate RECCE Missions.

8. Route Generation Process

The Route Generation process is initiated by Fighter Planning/Adjustment, RECCE Planning/Adjustment, Support Mission Planning and Candidate Mission Selection processes. The Route Generation process develops mission route and route times, establishes refueling require-

ments, determines Tanker availability and schedules refueling at the Tankers. Route Generation will consider the following route points by mission type:

- a. Preplanned CAS: Departure Base Location, FAC Location, Target Location and Recovery Base Location.
- b. Preplanned RECCE: Departure Base Location, Ingress Offset Point Location, Ingress Point Location, up to four Target Locations, Egress Point Location, Egress Offset Point Location and Recovery Base Location.
- c. Interdiction/Counter Air: Departure Base Location, Ingress Offset Point Location, Ingress Point Location, Target Location, Egress Point Location, Egress Offset Point Location and Recovery Base Location.
- d. CAP: Departure Base Location, Ingress Offset Point Location, Ingress Point Location, Control/Orbit Point Location, Egress Point Location, Egress Offset Point Location and Recovery Base Location.
- e. Escort: Departure Base Location, Rendezvous Point Location, the route points of the supported mission, and the Recovery Base Location.
- f. EW: Departure Base Location, Ingress Offset Point Location, Ingress Point Location, Control/Orbit Point Location, Egress Point Location, Egress Offset Point Location and Recovery Base Location or if the EW Mission is escorting a mission: Departure Base Location, Rendezvous Point Location, the route points of the supported mission, and the Recovery Base Location.

In addition to these route points if the process determines that refueling is required for a mission it will include the appropriate Pre- and/or Post-Strike Refueling Area Locations in the route points.

Also, if the process determines that a mission is to be adjusted and the mission is in progress, ie. has an ATD, the process will extrapolate a current position point for the mission and use this position point in developing the new route.

Route point times are developed by Route Generation based upon a TOT input by the operator, current time and position point for missions in progress, or rendezvous time developed by examining the supported mission's route data. Route times are adjusted to include time durations required over targets and for refueling.

9. SAR Assignment Process

The SAR Assignment Process is initiated by an operator action utilizing the SAR Assignment DED. This process will assign the SAR Mission to the SAR Requirement as specified in the operator action.

All processes either develop and/or utilize Mission Numbers which in turn are examined by the process to determine the appropriate processing steps required to respond to the operator's request. Each Mission Number contains twelve characters: a Unit Number, a dash, a Julian Day, a dash, a Mission Type designator and a Mission Sequence Number, ie. 122-252-CA04. The Unit Number contains the three digit identifier of the Wing, Squadron or Detachment. The Mission Type is a two letter designator with one of the following values:

- IC - IMMEDIATE CLOSE AIR SUPPORT
- PC - PREPLANNED CLOSE AIR SUPPORT
- CA - COUNTER AIR
- IN - INTERDICTION
- ES - ESCORT
- CP - CAP (COMBAT AIR PATROL)
- PR - PREPLANNED RECCE
- IR - IMMEDIATE RECCE
- EW - ELECTRONIC WARFARE
- SR - SEARCH AND RESCUE
- AD - AIR DEFENSE
- AR - AIR REFUELING

The Mission Sequence Number contains two digits to identify the mission in the sequence of missions Fraggged for the Unit. This sequence number is maintained by Unit and by Mission Type. In the example above, the Mission Number is for the fourth Counter Air Mission assigned to the 122 TFS to be flown on the 252 Julian Day.

Each of the processes uses and modifies system files. These files are identified in Section 3.1.2.4.1.2 File Requirements and Section 3.1.2.4.2.2 File Updates. The detailed specifications of these files are contained in the Data Base Requirements Section 3.1.3 of this document.

The operator actions and process-related displays are specified in Section 3.1.2.4.1.1 Operator Actions and Section 3.1.2.4.2.1 Displays. Each operator action will initiate a process which in turn will develop a display response to the action indicating that the request has been satisfied or that an alert condition has been detected. If the alert condition is caused by a discrepancy in the data contained in the operator action, the alert will indicate corrective procedures to be taken and the operator will be able to modify his request and reinitiate the process. Alert conditions are described under Mission Adjustment Alerts, Section 3.1.2.4.2.1.6. The operator actions and displays specified in Sections 3.1.2.4.1.1 and 3.1.2.4.2.1 are function specific and do not represent the total actions and displays available to the operator when he is determining a course of action that will require the operation of one or more Mission Adjustment processes. Other actions and displays which may be used in support of the Mission Adjustment Function are described in the Operator Action Section 5.0 and in the Display Control and Generation Function Section 3.1.2.7 of this document. These actions and displays initiate the retrieval of system file data and present this data to the operator.

Examples of system data which the operator may choose to review before taking a Mission Adjustment action are listed below.

1. Planning data, e.g. Command Guidance, Fighter Assignment, Frag Order Entry and Unit Planning Data.
2. Scheduled data, e.g. Mission Schedules by Mission Type, Missions scheduled by Unit, and Air Refueling Schedules.
3. Status data, e.g. Tactical Unit, Air Base and Flight Facility, Tactical Base Munitions.
4. Requirements data, e.g. Target, CAS Request and RECCE Requests.

Four examples of how Current Operations personnel may utilize the capability provided by the Mission Adjustment Functional processes are presented in the following flow diagrams. These examples also utilize the system data displays referenced above. Each of these examples present a sequence of actions that may be taken to respond to a specific system event. In the first example, the event is a new fighter requirement, i.e. immediate CAS Request or Target, which must be satisfied. In the second, the event is the availability of a new resource, i.e. a number of fighter sorties becomes available from a Unit. In the third, the event is the determination that a mission is to be cancelled, and the fourth is that a support mission is required. These four examples are presented in Figures 8-11.

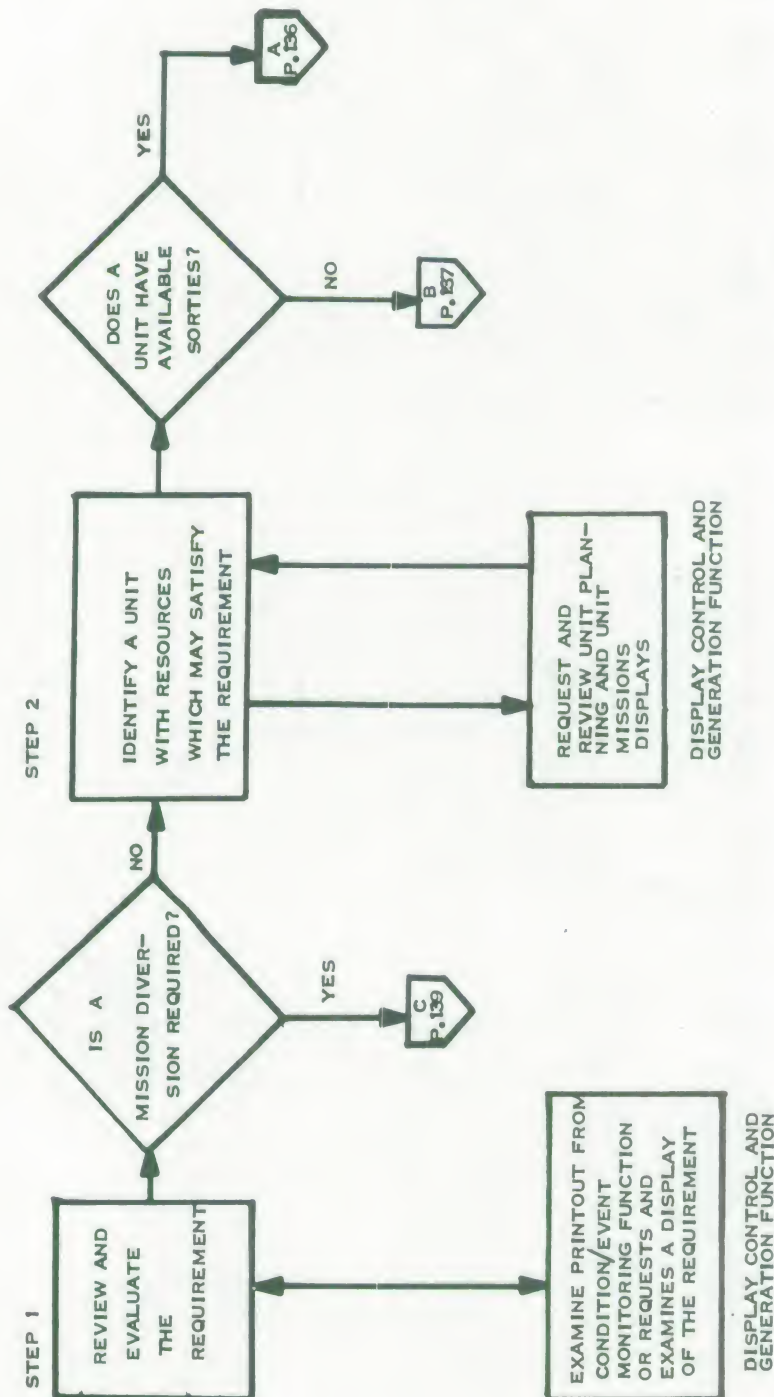


FIGURE 8

EVENT: A NEW FIGHTER REQUIREMENT

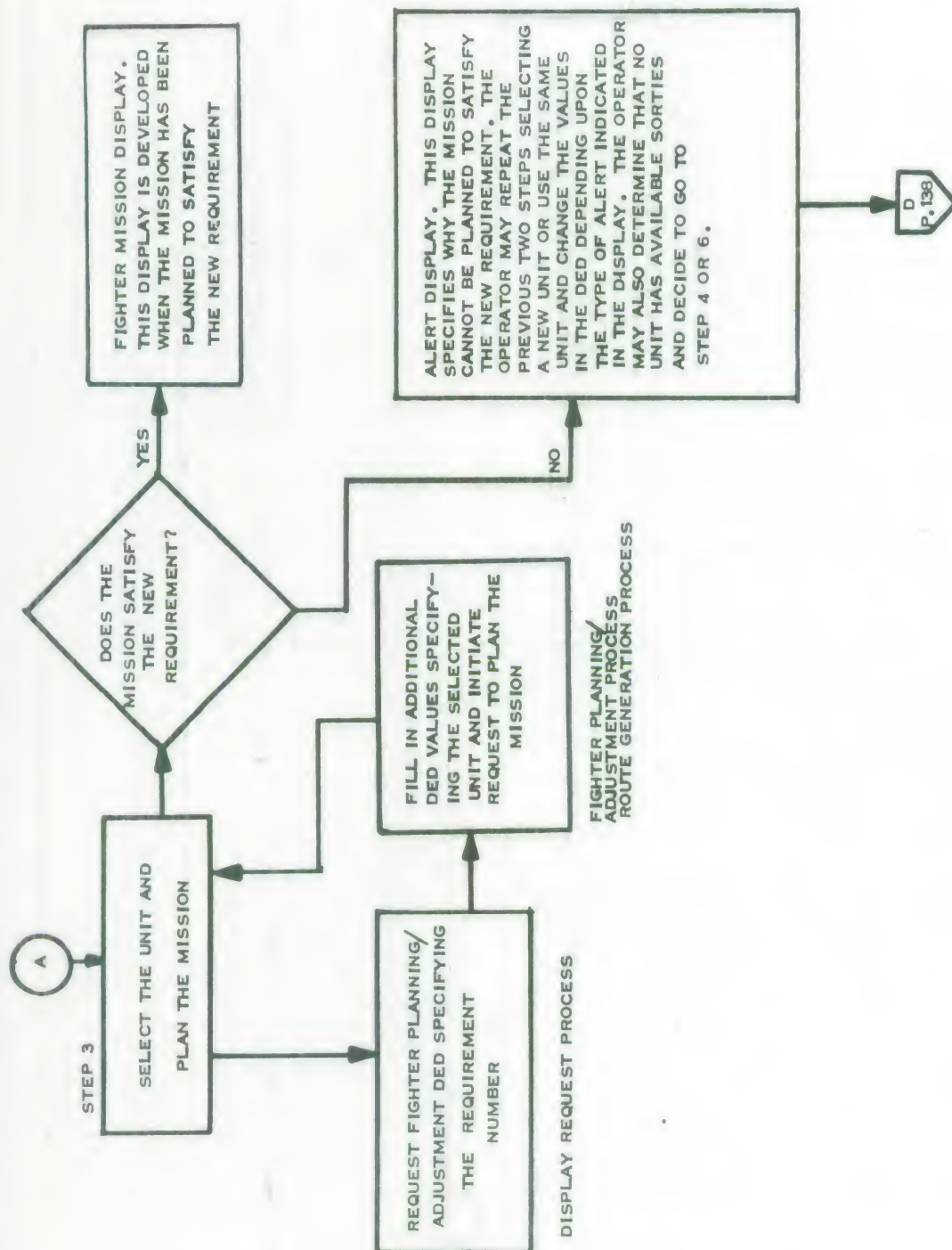


FIGURE 8 (CONT'D)

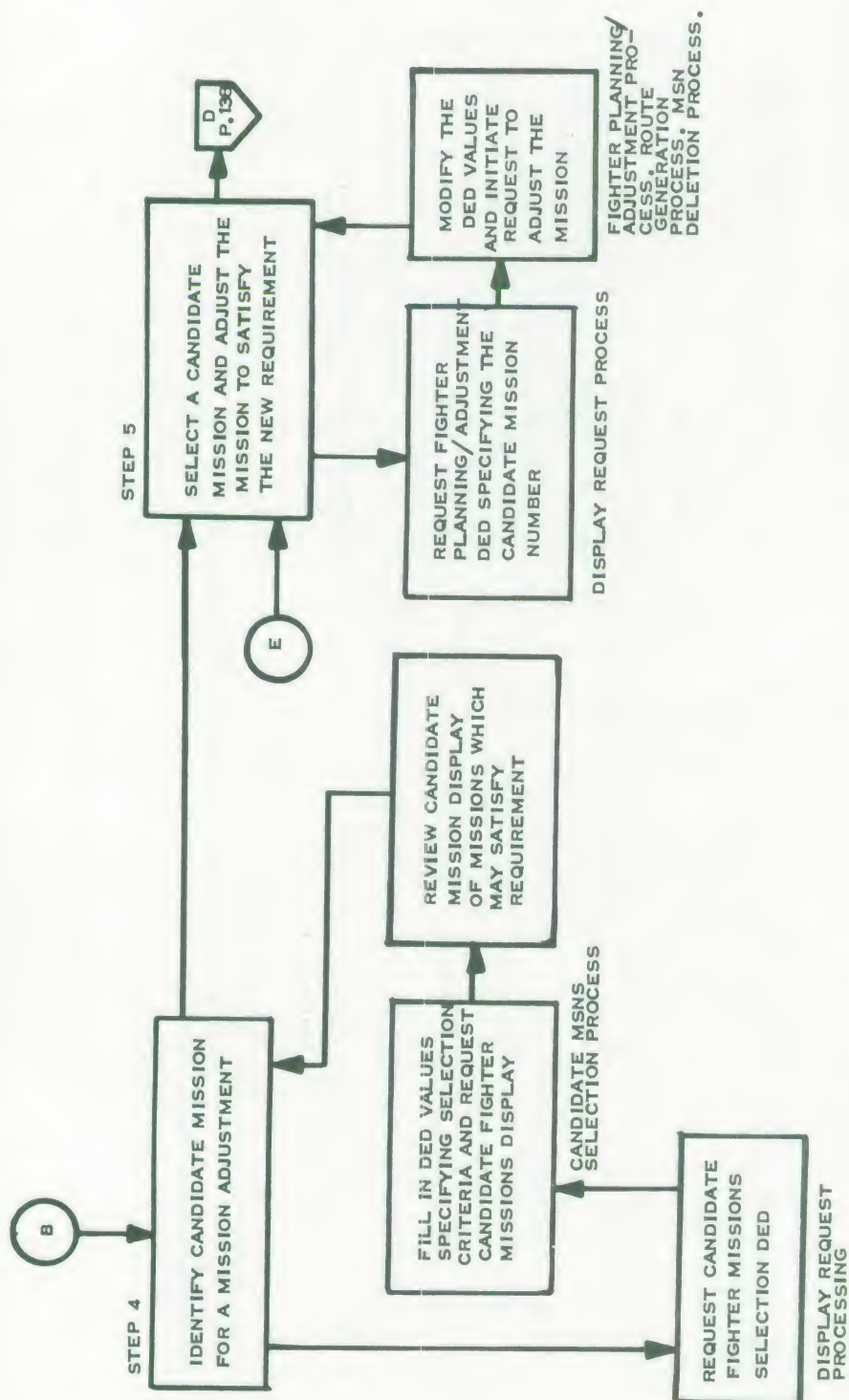


FIGURE 8 (CONT'D)

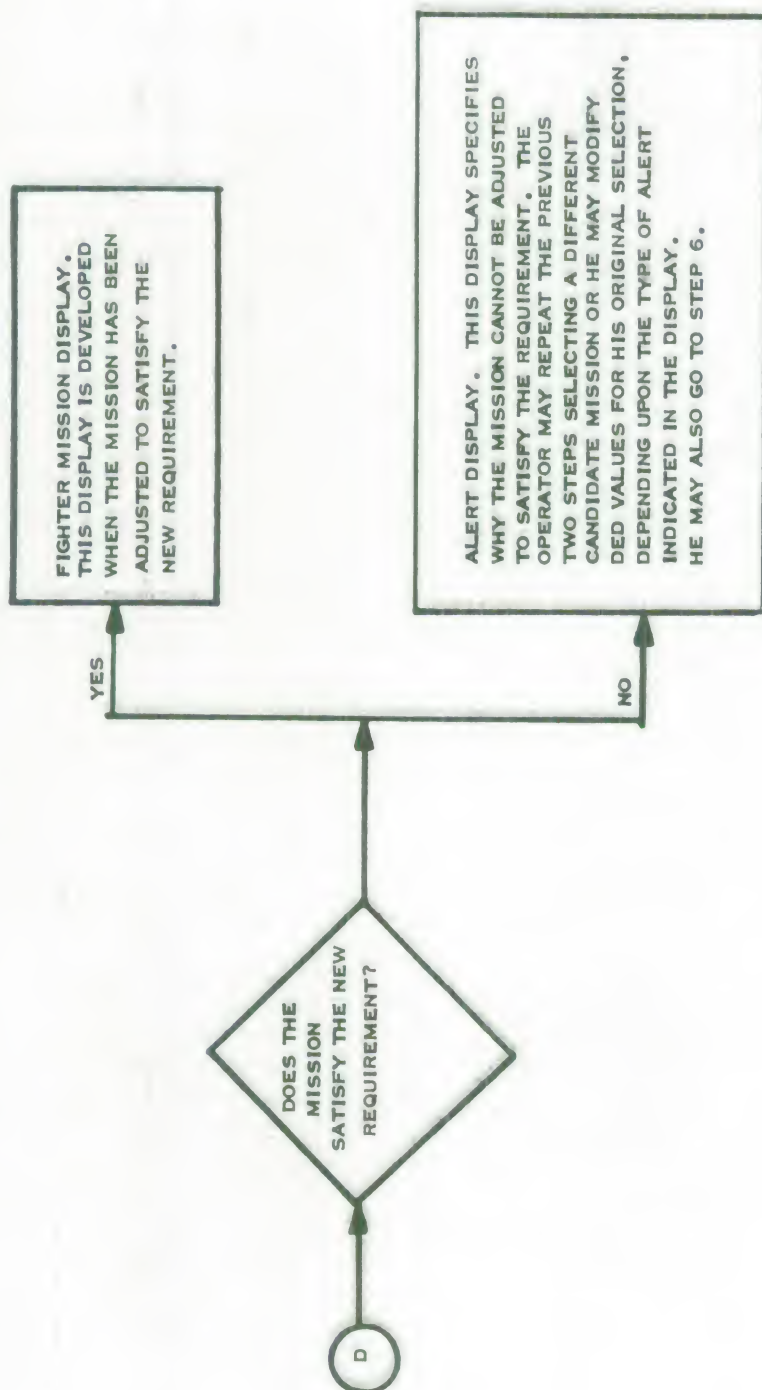


FIGURE 8 (CONT'D)

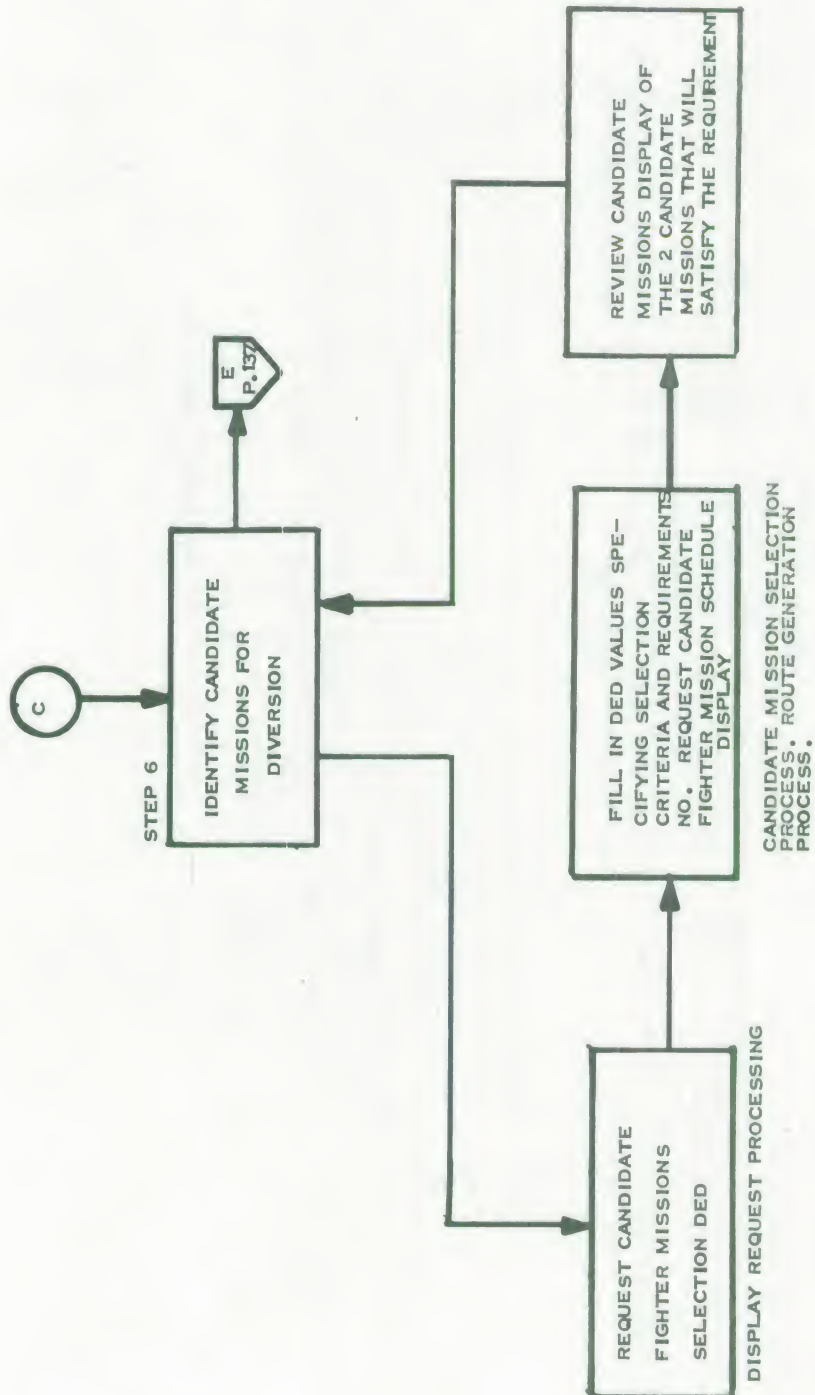


FIGURE 8 (CONT'D)

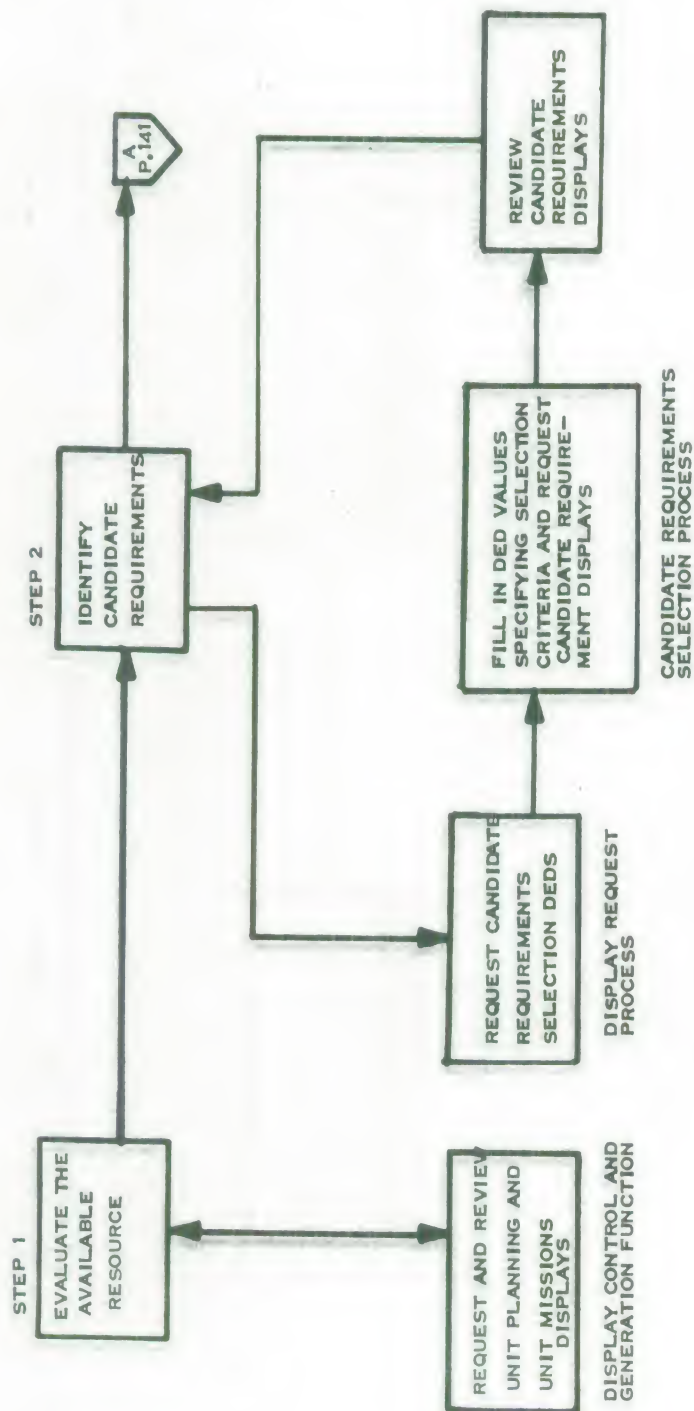


FIGURE 9
EVENT: A NEW FIGHTER RESOURCE AVAILABLE

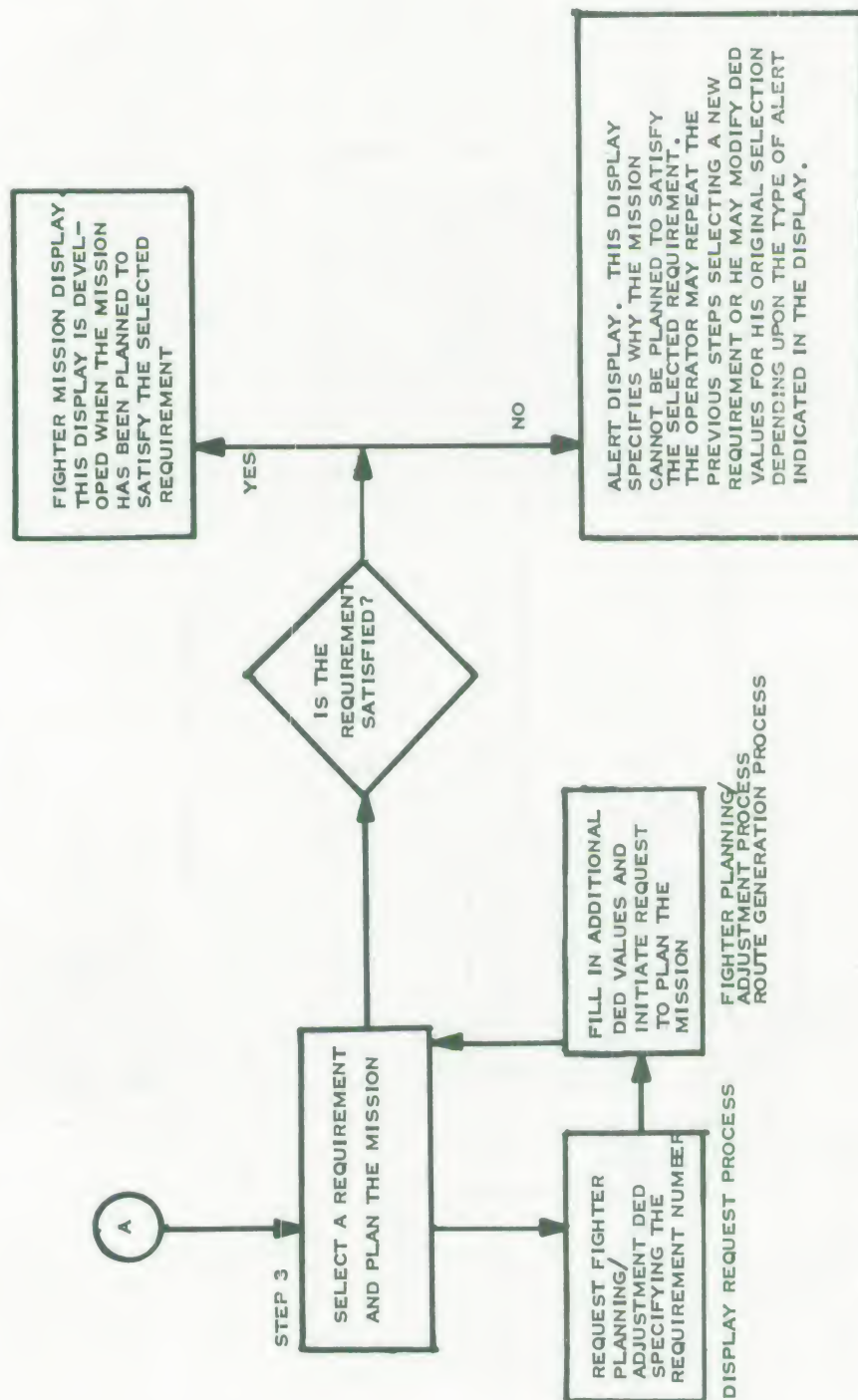


FIGURE 9 (CONT'D)



FIGURE 10

EVENT: A MISSION TO BE CANCELLED

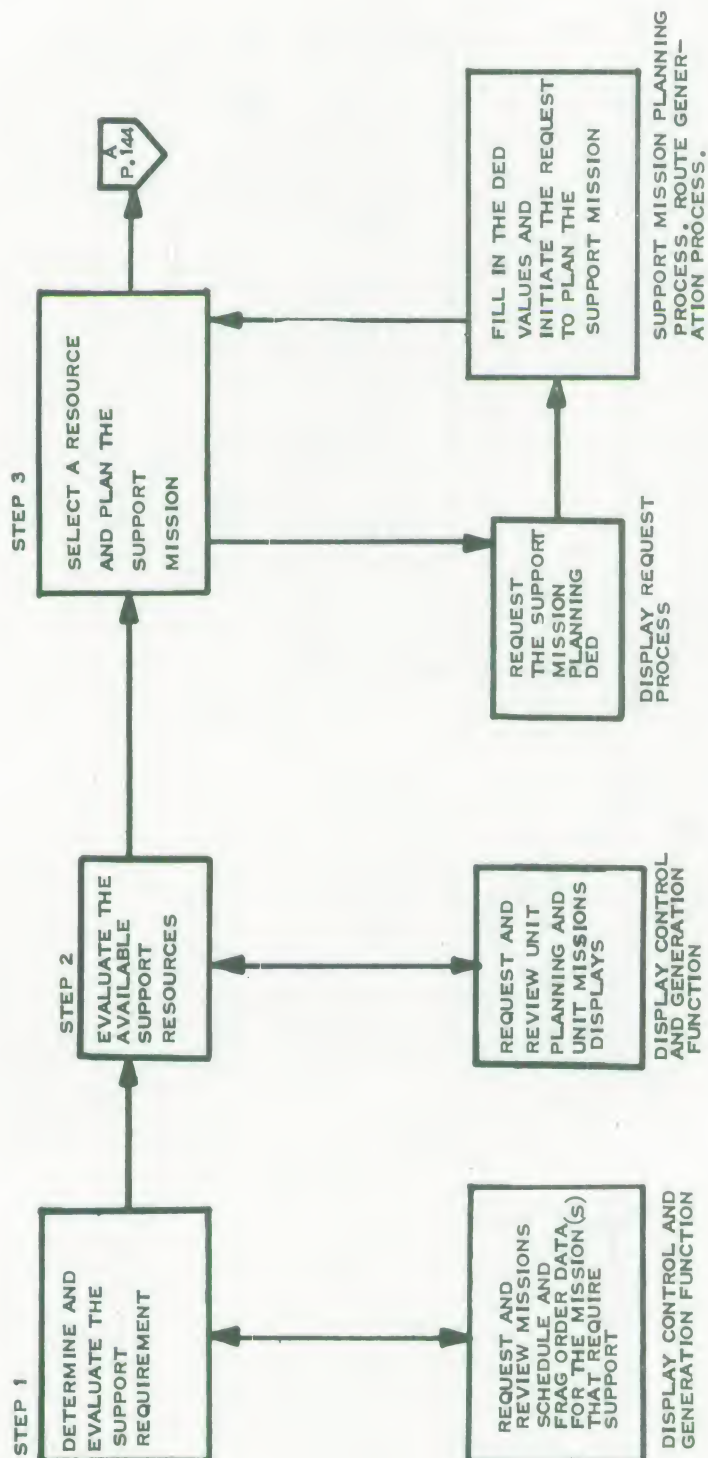


FIGURE 11

EVENT: PLAN A SUPPORT MISSION

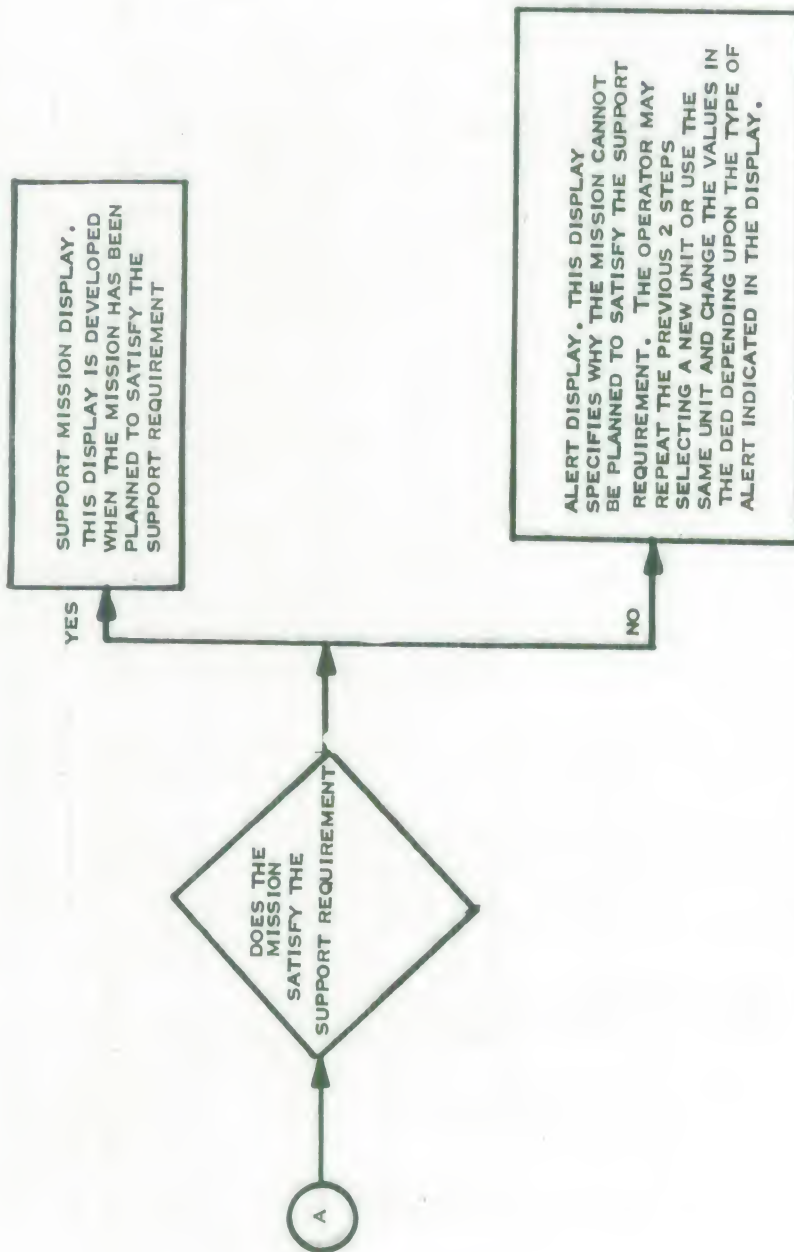


FIGURE 11 (CONT'D)

Mission Adjustment
Inputs

3.1.2.4.1 Source and Type of Inputs

3.1.2.4.1.1 Operator Actions

The Mission Adjustment Function operator actions are divided into seven groupings:

1. Candidate Requirements Selection Actions
2. Candidate Missions Selection Actions
3. Fighter Planning/Adjustment Actions
4. RECCE Planning/Adjustment Actions
5. Support Mission Planning Actions
6. The Mission Deletion Action
7. SAR Assignment Action

Each of the actions within these groupings initiates a specific Mission Adjustment process. These actions are described below, but the precise operator input is defined in Section 50 along with other actions that an operator may take to obtain system data displays in support of the Mission Adjustment Function.

3.1.2.4.1.1.1 Candidate Requirements Selection Actions

The Candidate Requirements Selection Actions are taken to initiate the Candidate Requirement Selection information processing. This processing will select Requirements which do not have missions assigned to them and display these Requirements to the operator.

A. Request Candidate Requirements Selection DEDS

These actions will initiate Display Request Processing which will present a DED form to the operator indicating the following data values to be entered as specified below.

1. Candidate CAS Requirements Selection DED
 - a. Lowest Priority (1-4)
 - b. Type A/C (optional)
 - c. Number of Sorties (optional)

2. Candidate Target Requirements Selection DED
 - a. Lowest Priority (1-4)
 - b. Type A/C (optional)
 - c. Number of Sorties (optional)
 - d. Ordnance Code (optional)
 - e. TOT Interval (optional)
3. Candidate RECCE Requirements Selection DED
 - a. Lowest Priority (1-4)
 - b. Type RECCE (optional)

The operator will set a value for the first item and may set the other values as specified in the display, to further indicate the selection criteria.

B. Initiate Candidate Requirements Selection

This action initiates the processing using the DED values input by the operator.

C. Additional Display Page Requests

The operator requests additional display pages by specifying the new page number in the first line of a Candidate Requirements display and then reinitiates the process. See Section 3.1.2.7.4.

3.1.2.4.1.1.2 Candidate Missions Selection Actions

The Candidate Missions Selection Actions are taken to initiate the Candidate Missions Selection information processing. This processing will select missions which are candidates for a mission adjustment and display these missions to the operator or present a schedule display for a specified candidate mission.

A. Request Candidate Missions Selection DEDS

These actions will initiate Display Request Processing which in turn will present a DED form to the operator indicating the following data values to be entered as specified below.

1. Candidate Fighter Missions Selection DED
 - a. Start ETD
 - b. End ETD
 - c. Alert First (optional, Yes)
 - d. Highest Priority (optional, 1-4)
 - e. Number of Sorties
 - f. Ordnance Code (optional)
 - g. Requirements Number (optional)

- h. TOT (optional)
- i. Ingress Point Code (optional)
- j. Egress Point Code (optional)
- 2. Candidate RECCE Missions Selection DED
 - a. Start ETD
 - b. End ETD
 - c. Alert First (optional, Yes)
 - d. Highest Priority (optional, 1-4)
 - e. Number of Sorties (optional)
 - f. Requirements Number (optional)
 - g. TOT (optional)
 - h. Ingress Point Code (optional)
 - i. Egress Point Code (optional)
- 3. Candidate Fighter Mission Schedule Display Request DED
 - a. Mission Number
 - b. Requirements Number
 - c. TOT (optional)
 - d. Ingress Point Code (optional)
 - e. Egress Point Code (optional)
- 4. Candidate RECCE Mission Schedule Display Request DED
 - a. Mission Number
 - b. Requirements Number
 - c. TOT (optional)
 - d. Ingress Point Code (optional)
 - e. Egress Point Code (optional)

For the first two DEDS, the operator will input values to establish the ETD time block used in selecting candidates. The Start ETD value may be less than current time if the operator wishes to consider missions in progress. The operator may enter other values as specified in the DEDS to further direct the process. Normally, the operator will not input values for Requirements Number, TOT, Ingress and Egress Point Codes unless there is a specific time constraint, i.e., a mission diversion is required.

If a Requirements Number is not specified the process will develop a Candidate Fighter or RECCE Missions Display. If it is specified the process will call Route Generation and develop mission schedule and refueling data for two missions which meet the TOT value specified or come closest to meeting it. If the operator does not input a TOT value, the process will select up to two missions with the earliest TOT's. These missions will be presented in a Candidate Fighter or RECCE Mission Schedule Display.

For the third and fourth DEDS the operator will input values for Mission Number and Requirements Number and may specify values as required. The process will develop a Candidate Fighter or RECCE Mission Schedule Display for the mission specified in the DED. If the operator does not input a TOT value the process will establish route times based on an ETD equal to the current time.

B. Initiate Candidate Mission Selection

The action initiates the processing using the DED values input by the operator.

C. Additional Display Page Requests

The operator requests additional display pages by specifying the new page number in the first line of the Candidate Fighter or Candidate RECCE Missions Display and then reinitiates the process. See Section 3.1.2.7.4.

3.1.2.4.1.1.3 Fighter Planning/Adjustment Actions

The Fighter Planning/Adjustment Actions are taken to initiate the Fighter Planning/Adjustment information processing. This processing develops Frag Order entries for Preplanned CAS, Interdiction and Counter Air Missions. It also bookkeeps the system files to reflect these newly planned or adjusted missions.

A. Request Fighter Planning/Adjustment DED.

This action may be specified in three different ways:

1. The operator may request the DED only.
2. He may request the DED and specify a Target or Request Number.
3. He may request the DED and specify a Mission Number.

This last action would normally be used in preparation for a mission adjustment.

The operator action will initiate Display Request Processing which in turn will present a DED form to the operator as well as item values if the request included a Target, Request or Mission Number. The DED form will indicate the following data values to be entered or modified as required.

1. Unit Number or Mission Number
2. Dispersal Base Code (optional)
3. Type A/C
4. Number of Sorties
5. First Ordnance Code
6. Second Ordnance Code (optional)
7. Requirements Number (Target or Request Number)
8. TOT

Items 9-12 are used for Interdiction and Counter Air Missions.

9. First Alternate Target (optional)
10. Second Alternate Target (optional)
11. Ingress Point Code
12. Egress Point Code
13. Remarks (optional)

If the DED request contained a Target or Request Number, values for items 3-8 will be included in the display, if they exist in the files for the specified Target or Request Number. If the DED request contained a Mission Number, values for all items will be presented in the display, if these values exist in the Frag Order entry for the Mission Number specified in the operator action.

The operator will input or modify values for the items as specified in the display with one exception: If the DED contains a Mission Number in item 1 he will not modify the Mission Number or, if item 1 does not have a value, he may only input a Unit Number.

B. Initiate Fighter Planning/Adjustment

This action initiates the processing using the DED values. The processing will examine the values and plan or adjust the Fighter Mission as specified by these inputs.

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3.1.2.4.1.1.4 RECCE Planning/Adjustment Actions

The RECCE Planning/Adjustment Actions are taken to initiate the RECCE Planning/Adjustment information processing. This processing develops Frag Order entries for Preplanned RECCE Missions and bookkeeps the other system files to reflect these newly planned or adjusted missions.

A. Request RECCE Planning/Adjustment DED

This action may be specified in two different ways:

1. The operator may request the DED only.
2. He may request the DED and specify a Mission Number.

This second action would normally be used in preparation for a mission adjustment.

The operator action will initiate Display Request Processing which in turn will present a DED form as well as item values if the request included a Mission Number. The DED form will indicate the following data values to be entered or modified as required.

1. Unit Number or Mission Number
2. Dispersal Base Code (optional)
3. Type A/C
4. Number of Sorties
5. Request #1
6. Request #2 (optional)
7. Request #3 (optional)
8. Request #4 (optional)
9. TOT
10. TOT/Request Code (optional, 1-4)

Item 10 is set when more than one request is specified.

11. Ingress Point Code (optional)
12. Egress Point Code (optional)
13. Remarks (optional)

If the DED request contained a Mission Number, values for items 1-13 will be presented in the display, if these values exist in the Frag Order entry for the Mission Number specified in the operator action.

The operator will input or modify values for the items as specified in the display with one exception: If the DED contains a Mission Number in Item 1, he will not modify the Mission Number or if Item 1 does not have a value he may only input a Unit Number.

If the operator inputs more than one Request Number he must specify the Request Numbers in the order in which the mission is to perform the Requests. He may only input one TOT and therefore, must specify a code value (1-4) in item 10 to indicate which request has the assigned TOT.

B. Initiate RECCE Planning/Adjustment

This action initiates the processing to plan or adjust the RECCE Mission using the DED values.

3.1.2.4.1.1.5 Support Mission Planning Actions

The Support Mission Planning Actions are taken to initiate the Support Mission Planning information processing. This processing develops Frag Order entries for CAP, Escort and EW Missions. It also bookkeeps the system files to reflect the planning of these Support Missions.

A. Request Support Mission Planning DED

This operator action will initiate Display Request Processing which in turn will present a DED form to the operator indicating the following data values to be entered as specified below.

1. Unit Number
2. Dispersal Base Code (optional)
3. Mission Type (CAP, EW, Escort)
4. Type A/C
5. Number of Sorties

6. Ordnance Code or Type EW
7. Supported Mission Number (0 to 5 for CAP & EW, 1 for Escort or EW Escort)
8. Control/Orbit/Rendezvous Point (lat/long)

Items 9-12 are set when item 3 is set to CAP or when item 3 is set to EW and the EW Mission is not escorting a Supported Mission.

9. Time Required at Control/Orbit Point
10. Duration of Time at Control/Orbit Point
11. Ingress Point Code
12. Egress Point Code
13. Remarks (optional)

The operator will input values for the items as specified in the display. If he inputs a value for Mission type, Item 3, of CAP or EW, he may specify up to five Supported Missions in item 7. If he inputs a value for Mission Type of Escort, he must enter one Supported Mission Number in item 7. If the operator is planning an EW Mission to act in an escorting capacity, he must specify one Supported Mission Number for item 7. He must not input values for items 9-12 where planning an Escort or EW Escort Mission.

B. Initiate Support Mission Planning.

This action initiates the processing to plan the Support Mission using the DED values.

3.1.2.4.1.1.6 Mission Deletion Action

The Mission Deletion Action initiates the Mission Deletion information processing. This processing will delete a Preplanned CAS, Preplanned RECCE, Interdiction, Counter Air, CAP, Escort or EW Mission as specified by the Mission Number contained in the operator action.

3.1.2.4.1.1.7 SAR Assignment Action

The SAR Assignment Action is taken to assign a SAR Mission to a SAR Requirement.

A. Request SAR Assignment DED

This operator action will initiate Display Request Processing which in turn will present a DED form to the operator indicating the following data values to be entered as specified below.

1. Mission Number
2. Requirements Number
3. Remarks (optional)

The operator will insert values for a SAR Mission Number and a SAR Requirements Number and he may insert remarks.

B. Initiate SAR Assignment

This action will initiate the SAR Assignment information processing using the DED values established by the operator.

3.1.2.4.1.2 File Requirements

The Mission Adjustment Function uses Requirement Files, Unit/Base Files, Frag Order/Mission Schedule Files and Planning Files. These files are required to plan, adjust and delete missions from the system. Detailed specifications of these files are presented in the Data Base Requirements Section 3.1.3 of this document. The specific items of information contained in these files and utilized by the Mission Adjustment Function are identified in the Information Processing Section 3.1.2.4.3 for the function.

3.1.2.4.1.2.1 Requirements Files

Requirements Files provide target data for the planning of Fighter and RECCE Missions, and mission data for the assignment of SAR Missions. The Requirements Files include:

- a. Target File
- b. Preplanned Close Air Support Request File
- c. Preplanned Air Reconnaissance Request File
- d. Search and Rescue Requirements File

3.1.2.4.1.2.2 Unit/Base Files

The Unit/Base Files provide Unit related mission planning data and Base munitions data required for the planning and/or adjustment of missions. These files include:

- a. Unit Planning File
- b. Tactical Base Munitions Status File

3.1.2.4.1.2.3 Frag Order/Mission Schedule Files

The Frag Order/Mission Schedule Files provide data for deleting or adjusting a mission, planning a support mission and scheduling mission refueling. The Frag Order/Mission Schedule Files include:

- a. Preplanned Fighter Frag Order/Mission Schedule File
- b. Preplanned Reconnaissance Frag Order/Mission Schedule File
- c. Electronic Warfare Frag Order/Mission Schedule File
- d. Immediate Close Air Support Frag Order File
- e. Immediate Reconnaissance Frag Order File
- f. Air Refueling Mission Schedule File

3.1.2.4.1.2.4 Planning Files

The Planning Files contain general system characteristics data used in planning and adjusting missions. The Planning Files include:

- a. Ordnance Code File
- b. Recall Words File
- c. Base/Control Agency File
- d. Aircraft Characteristics File
- e. Ingress/Egress Points File
- f. Refueling Area File

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3.1.2.4.2 Destination and Type of Outputs

3.1.2.4.2.1 Displays

The Mission Adjustment Function displays are divided into six groupings:

1. Requirements Displays
2. Capability Displays
3. Mission Adjustment DEDs
4. Mission Displays
5. Mission Deletion Display
6. Mission Adjustment Alerts

Each of the displays within these groupings is routed to the operator who initiated a specific Mission Adjustment process which in turn generated the display. The content of these Mission Adjustment process-related displays is described below. Their structure and the other system displays used in support of the Mission Adjustment Function are described in the Display Control and Generation Function Section 3.1.2.7.

3.1.2.4.2.1.1 Requirements Displays

The requirements displays are developed by the Candidate Requirements Selection information processing. These displays contain data for each requirement selected by the processing. The display names and their content are listed below.

A. Candidate RECCE Requirements

1. Request Number
2. Priority
3. Request Type
4. Target Category
5. Target Location (first location)
6. Type of Reconnaissance
7. LTIOV

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B. Candidate CAS Requirements

1. Request Number
2. Priority
3. Target Description
4. Target Location (first location)
5. Target Time
6. Ordnance
7. Number of A/C
8. Type A/C
9. Request Type

C. Candidate Target Requirements

1. Target Number
2. Target Location
3. Target Priority
4. First Recommended Ordnance
5. Second Recommended Ordnance
6. Type A/C
7. Sorties
8. Fighter Support
9. EW Support
10. DTOT
11. LTOT

3.1.2.4.2.1.2 Capability Displays

The capability displays are developed by the Candidate Mission Selection information processing. These displays contain data for each candidate mission selected by the processing. The display names and their content are listed below.

A. Candidate Fighter Missions

1. Mission Number
2. Number of Sorties
3. A/C Type
4. ETD/ETR or Duration of Alert
5. First Ordnance Code
6. Second Ordnance Code
7. Target or Request Number
8. Target or Request Priority

B. Candidate RECCE Missions

1. Mission Number
2. Number of Sorties
3. A/C Type
4. ETD/ETR or Duration of Alert
5. Number of requests
6. Request Number
7. Request Priority

Items 6 and 7 may be repeated up to two times.

C. Candidate Fighter Mission Schedule

1. Mission Number
2. Number of Sorties
3. A/C Type
4. ETD/ETR or Duration of Alert
5. First Ordnance Code
6. Second Ordnance Code
7. Target or Request Number
8. Target or Request Priority
9. Departure Base Code
10. First Support Mission
11. Second Support Mission
12. Target or Request Number input by the operator
13. Number of Sorties input by the operator

14. TOT
15. ETD/ETR
16. Position Point, if the mission is in progress
17. Pre-Strike Refueling Area Code, Time and Fuel Required
18. Post-Strike Refueling Area Code, Time and Fuel Required

D. Candidate RECCE Mission Schedule

1. Mission Number
 2. Number of Sorties
 3. A/C Type
 4. ETD/ETR or Duration of Alert
 5. Number of Requests
 6. Request Number
 7. Request Priority
 8. Type of Reconnaissance
- Items 6 thru 8 may be repeated up to four times
9. Departure Base Code
 10. First Support Mission
 11. Second Support Mission
 12. Request Number input by the operator
 13. Type of Reconnaissance for the new request
 14. Number of Sorties input by the operator
 15. TOT
 16. ETD/ETR
 17. Position Point, if the mission is in progress
 18. Pre-Strike Refueling Code, Time and Fuel Required
 19. Post-Strike Refueling Code, Time and Fuel Required

When Immediate Missions (alert sorties) are presented in the above displays, the following items will not contain values:

- a. Candidate Fighter Missions, items 6 thru 8
- b. Candidate RECCE Missions, items 5 thru 7
- c. Candidate Fighter Mission Schedule, items 6 thru 8 and items 10 and 11
- d. Candidate RECCE Mission Schedule, items 5 thru 8 and items 10 and 11.

3.1.2.4.2.1.3 Mission Adjustment DEDs

The Mission Adjustment Data Entry Displays present data forms which identify data values to be input by the operator. Once the data values have been input by the operator they are used to initiate a specific operator request. Some of these displays may present data forms with preset data values. These values are placed in the display by Display Request Processing, see Section 3.1.2.4.3.1, in response to the operator action used to request the DED. The DED names and their form and content are described below.

- A. Candidate CAS Requirements Selection
 - 1. Lowest Priority (1-4)
 - 2. Type A/C (optional)
 - 3. Number of Sorties (optional)
- B. Candidate Target Requirements Selection
 - 1. Lowest Priority (1-4)
 - 2. Type A/C (optional)
 - 3. Number of Sorties (optional)
 - 4. Ordnance Code (optional)
 - 5. TOT Interval (optional)
- C. Candidate RECCE Requirements Selection
 - 1. Lowest Priority (1-4)
 - 2. Type RECCE (optional)
- D. Candidate Fighter Missions Selection
 - 1. Start ETD
 - 2. End ETD
 - 3. Alert First (optional, Yes)
 - 4. Highest Priority (optional, 1-4)
 - 5. Number of Sorties
 - 6. Ordnance Code (optional)
 - 7. Requirements Number (optional)
 - 8. TOT (optional)
 - 9. Ingress Point Code (optional)
 - 10. Egress Point Code (optional)
- E. Candidate RECCE Missions Selection
 - 1. Start ETD
 - 2. End ETD
 - 3. Alert First (optional, Yes)
 - 4. Highest Priority (optional, 1-4)
 - 5. Number of Sorties (optional)
 - 6. Requirements Number (optional)
 - 7. TOT (optional)
 - 8. Ingress Point Code (optional)
 - 9. Egress Point Code (optional)

F. Candidate Fighter Mission Schedule Display Request

1. Mission Number
2. Requirements Number
3. TOT (optional)
4. Ingress Point Code (optional)
5. Egress Point Code (optional)

G. Candidate RECCE Mission Schedule Display Request

1. Mission Number
2. Requirements Number
3. TOT (optional)
4. Ingress Point Code (optional)
5. Egress Point Code (optional)

H. Fighter Planning/Adjustment

1. Unit Number or Mission Number
2. Dispersal Base Code (optional)
3. Type A/C
4. Number of Sorties
5. First Ordnance Code
6. Second Ordnance Code (optional)
7. Requirements Number
8. TOT

Items 9-12 are set for Interdiction and Counter Air Missions.

9. First Alternate Target (optional)
10. Second Alternate Target (optional)
11. Ingress Point Code
12. Egress Point Code
13. Remarks (optional)

I. RECCE Planning/Adjustment

1. Unit Number or Mission Number
2. Dispersal Base Code (optional)
3. Type A/C
4. Number of Sorties
5. Request #1
6. Request #2 (optional)

7. Request #3 (optional)
 8. Request #4 (optional)
 9. TOT
 10. TOT/Request Code (optional, 1-4)
- Item 10 is set when more than one Request is specified.
11. Ingress Point Code (optional)
 12. Egress Point Code (optional)
 13. Remarks (optional)

J. Support Mission Planning

1. Unit Number
2. Dispersal Base Code (optional)
3. Mission Type (CAP, EW, Escort)
4. Type A/C
5. Number of Sorties
6. Ordnance Code or Type EW
7. Supported Mission Numbers (0 to 5 for CAP & EW, 1 for Escort or EW Escort)
8. Control/Orbit/Rendezvous Point (lat/long)

Items 9-12 are set when item 3 is set to CAP or when item 3 is set to EW and the EW Mission is not escorting a Supported Mission.

9. Time Required at Control/Orbit Point
10. Duration of Time at Control/Orbit Point
11. Ingress Point Code
12. Egress Point Code
13. Remarks (optional)

K. SAR Assignment

1. Mission Number
2. Requirements Number
3. Remarks (optional)

3.1.2.4.2.1.4 Mission Displays

Mission Displays are developed as a result of the Fighter Planning/Adjustment information processing, the RECCE Planning/Adjustment information processing and the Support Mission Planning information processing. These displays are generated to indicate that a mission has been successfully planned or adjusted. The Mission Displays and their content are specified in the Display Control and Generation Function. See Section 3.1.2.7.3.2.2.

3.1.2.4.2.1.5 Mission Deletion Display

The Mission Deletion Display is developed by the Mission Deletion information processing. This display is generated to indicate that a mission has been deleted from the system files or that there has been a reduction in the Number of Alert Sorties available for Immediate CAS or RECCE Missions. The display name and data content is described below.

Mission Deleted

1. Mission Number
2. Number of Sorties
3. Target or Request Number for Counter Air, Interdiction, CAS, and RECCE Missions

Item 3 may be repeated up to four times.

4. Support or Supported Mission(s)

Item 4 may be repeated up to five times.

Only items 1 and 2 are presented when there has been a reduction in the number of alert sorties and item 1 is the Mission Number which has been deleted from the block of Mission Numbers Fraggd for the Immediate Missions.

3.1.2.4.2.1.6 Mission Adjustment Alerts

The Mission Adjustment Alerts are one line displays which signify that a Mission Adjustment process has (1) detected an alert condition and terminated, (2) not found the data specified by the operator request, or (3) completed processing in response to an operator request. The Mission Adjustment Alerts are listed below with a description of the conditions under which they are presented.

A. NO CANDIDATE REQUIREMENTS FOUND; ENTER NEW SELECTION

This display is generated by Candidate Requirement Selection information processing when this process cannot find Requirements which meet the criteria specified in the operator request.

B. NO CANDIDATE MISSIONS FOUND; ENTER NEW SELECTION

This display is generated by Candidate Mission Selection when this process cannot find candidate missions which meet the criteria specified in the operator request.

C. REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE

This display is generated by Candidate Mission Selection, Fighter Planning/Adjustment, RECCE Planning/Adjustment, Display Request

Processing, or SAR Assignment when any one of these processes determines that the Target, Request or SAR Requirements Number which was specified in the operator request is not in the system files.

D. UNIT NUMBER NOT RECOGNIZED; ENTER NEW VALUE

This display is generated by Fighter Planning/Adjustment, RECCE Planning/Adjustment, or Support Mission Planning when any one of these processes determines that the Unit Number specified in the operator request is not in the system files.

E. DISPERSAL BASE CODE NOT RECOGNIZED; ENTER NEW VALUE

This display is generated by Fighter Planning/Adjustment, RECCE Planning/Adjustment or Support Mission Planning when any one of these processes determines that the Dispersal Base Code as specified in the operator request is not a location of aircraft for the requested Unit.

F. A/C TYPE NOT AVAILABLE AT BASE SPECIFIED; ENTER NEW VALUE

This display is generated by Fighter Planning/Adjustment, RECCE Planning/Adjustment or Support Mission Planning when any one of these processes determines that the A/C type input by the operator request is not available at the base specified by the request.

G. ORD CODE NOT AVAILABLE FOR A/C TYPE; ENTER NEW VALUE

This display is generated by Fighter Planning/Adjustment or Support Mission Planning when either of these processes determines that an Ordnance Code as specified in an operator request is not available for the type A/C contained in the request.

H. INSUFFICIENT BASE MUNITIONS; SELECT ANOTHER UNIT

This display is generated by either Fighter Planning/Adjustment or Support Mission Planning when the process determines that the departure base does not have the type(s) of munitions requested for the mission.

I. MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE

This display is generated by Support Mission Planning, Candidate Mission Selection, Display Request Processing, Mission Deletion, or SAR Assignment when any one of these processes determines that a Mission Number as specified in an operator request cannot be found in the system files. In addition, this display is generated by Candidate Mission Selection when a Mission Number has been used to request alert sorties and the sorties are not available, or when the mission that has been requested has a Mission Status equal to Deleted or Complete.

J. (Mission Number) PREVIOUSLY DELETED

This display is generated by Mission Deletion in response to an operator request to delete a mission which has already been deleted from the system files.

K. EXCESSIVE REFUELING REQUIRED; SELECT ANOTHER UNIT

This display is generated by Route Planning when the total fuel required for a sortie between the Pre-Strike and Post-Strike Refueling Points is greater than the total fuel the aircraft can carry between the refueling points.

L. REFUELING UNAVAILABLE; REPLAN THE MISSION

This display is generated by Route Generation when the process determines that a Tanker is not available or is unable to refuel the mission.

M. ADJUSTMENT NOT POSSIBLE; SELECT ANOTHER MISSION

This display is generated by Route Planning when the process determines that a mission cannot be adjusted because the mission is in progress and has already reached its Target or Ingress Point.

N. SAR ASSIGNMENT COMPLETED

This display is generated by SAR Assignment when the process has assigned a SAR Mission to a SAR Requirement.

- O. INGRESS/EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE
INGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE
EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE

These displays are generated by Route Generation when the process determines that the Ingress and/or Egress Point Code as specified in the operator request are not contained in the Ingress/Egress Point File.

- P. ETD LESS THAN CURRENT TIME; REPLAN THE MISSION

This display is generated by Route Generation when the process determines that the mission is not in progress but requires an ETD less than the current time in order to meet the requested TOT.

- Q. FIGHTER AND EW SUPPORT REQUIRED
FIGHTER SUPPORT REQUIRED
EW SUPPORT REQUIRED

These displays are generated by Fighter Planning/Adjustment and RECCE Planning/Adjustment when either of these processes determines that Fighter and/or EW Support has been specified for the Fighter or RECCE Mission that has been adjusted or planned by the process.

- R. ENTRY NOT AVAILABLE (File ID); PROCESS CONTINUING
ENTRY NOT AVAILABLE (File ID); PROCESS TERMINATING

These displays are generated by the Mission Adjustment processes when an attempt is made to establish a new Object in a file and no entry is available.

- S. ENTRY FULL (File ID, Object); PROCESS CONTINUING
ENTRY FULL (File ID, Object); PROCESS TERMINATING

These displays are generated by the Mission Adjustment processes when an unsuccessful attempt is made to add data to an entry in the file.

- T. ENTRY NOT FOUND (File ID, Object); PROCESS CONTINUING
ENTRY NOT FOUND (File ID, Object, Property); PROCESS CONTINUING

These displays are generated by the Mission Adjustment processes when an unsuccessful attempt is made to retrieve data from a file.

- U. (Number) CANDIDATE REQUIREMENTS

This display is generated by the Candidate Requirements Selection when the process finds one or more candidate missions which meet the criteria specified in the operator request.

V. (Number) CANDIDATE MISSIONS

This display is generated by the Candidate Mission Selection when the process finds one or more candidate missions which meet the criteria specified in the operator request.

W. CANDIDATES DO NOT MEET REQUESTED TOT

This display is generated by the Candidate Mission Selection when the process presents candidates that do not satisfy the TOT parameters of the operator request.

3.1.2.4.2.2 File Updates

The Mission Adjustment Function updates Requirements Files, Unit Files and Frag Order/Mission Schedule Files. These files are updated to reflect the planning, adjustment and deletion of missions from the system. The detailed specifications of these files are contained in the Data Base Requirements Section 3.1.3 of this document.

3.1.2.4.2.2.1 Requirements Files

The Requirements Files are updated with mission data to reflect the assignment of missions to satisfy the requirements. The Requirements Files and their mission data are listed below.

A. Target File

1. Mission Number
2. Number of Sorties
3. First Ordnance Code
4. Second Ordnance Code
5. TOT

B. Preplanned Close Air Support Request File

1. Mission Number
2. Number of Sorties
3. First Ordnance Code
4. Second Ordnance Code
5. TOT

C. Preplanned Air Reconnaissance Request File

1. Mission Number
2. Number of Sorties
3. TOT

D. Search and Rescue Requirements File

1. Mission Number

3.1.2.4.2.2.2 Unit Files

The Unit Files are updated to reflect the utilization of Unit capability and to bookkeep Unit related items required in the planning of a mission. The Unit files and their updated items are listed below.

A. Unit Planning File

1. Call Sign Sequence Number
2. Mission Sequence Number
3. Number of Sorties Available
4. Number of Sorties Committed

B. Unit Mission Files

1. Mission Number
2. Departure (Home or Dispersal) Base Code
3. A/C Type
4. ETD
5. ETR

3.1.2.4.2.2.3 Frag Order/Mission Schedule Files

The Frag Order/Mission Schedule Files are updated with the mission planning data required to establish Frag Order and reflect mission schedules. These files are listed below with either references to their updated items or their updated item names.

A. Preplanned Fighter Frag Order/Mission Schedule Files

The updated items in this file are identified in the Preplanned Fighter Frag Order/Mission Property **Matrix**. See Section 3.1.3.22. They include properties 2-96, 117, and 129-133.

B. Preplanned Reconnaissance Frag Order/Mission Schedule Files

The updated items in this file can be identified in the file description. See Section 3.1.3.23 . They include properties 2-172, 211, and 222-227.

C. Electronic Warfare Frag Order/Mission Schedule File

The updated items in this file can be identified in the file description. See Section 3.1.3.9 . They include properties 2-76, 97, and 109-112.

D. Immediate Close Air Support Frag Order File

1. Last Mission Number
2. Number of Sorties
3. Transmit Flag

E. Immediate Reconnaissance Frag Order File

1. Last Mission Number
2. Number of Sorties
3. Transmit Flag

F. Air Refueling Mission Schedule File

1. Unscheduled Fuel
2. Total Sorties to be Refueled
3. Mission Number of Mission to be Refueled
4. Amount of Fuel Required

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G. Search and Rescue Frag Order/Mission Schedule File

1. Transmit Flag
2. Remarks
3. SAR Requirements Number
4. Mission Number of Aircraft in Distress or Down
5. Destination of SAR Mission

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3.1.2.4.3 Information Processing

3.1.2.4.3.1 Display Request Processing

Display Request Processing is initiated in response to operator actions which request Mission Adjustment Data Entry Displays. This processing will present the Data Entry Display (DED) to the operator who initiated the request. The operator will enter or modify values as specified in the DED to initiate other Mission Adjustment processes. Inputs to Display Request Processing include requests for the following DEDS:

1. Candidate CAS Requirements Selection
2. Candidate RECCE Requirements Selection
3. Candidate Target Requirements Selection
4. Candidate Fighter Missions Selection
5. Candidate RECCE Missions Selection
6. Candidate Fighter Mission Schedule Display Request
7. Candidate RECCE Mission Schedule Display Request
8. Fighter Planning/Adjustment
9. RECCE Planning/Adjustment
10. Support Mission Planning
11. SAR Assignment

The following processing steps are required to process these operator requests:

- a. Examine the operator request to identify the DED that has been specified in the request. If the request is for a Candidate CAS Requirements Selection, Candidate Target Requirements Selection, Candidate RECCE Requirements Selection, Candidate Fighter Missions Selection, Candidate RECCE Missions Selection, Candidate Fighter Mission Schedule Display Request, Candidate RECCE Mission Schedule Display Request, Support Mission Planning or SAR Assignment DED, develop the DED as identified in the request. The content of each of these DEDS is specified in Section 3.1.2.4.2.1.3, Mission Adjustment DEDS. If the request is for a Fighter Planning/Adjustment DED and does not contain a Target, Request or Mission Number or if it is for a RECCE Planning/Adjustment DED and does not contain a Mission Number, develop the DED as indicated above.

If the request is for a Fighter Planning/Adjustment DED and contains a Target, Request or Mission Number proceed with Step b. If it is for a RECCE Planning/Adjustment DED and contains a Mission Number go to Step c.

- b. Examine the number input as part of the Fighter Planning/Adjustment DED request. If it is a Target Number use this number to retrieve the following Target Data from the Target File:

- 1) Type A/C (Recommended)
- 2) Number of Sorties (Recommended)
- 3) First Ordnance Code (Recommended)
- 4) Second Ordnance Code (Recommended)
- 5) TOT (Desired)

If an entry does not exist in the Target File for the Target Number output: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. Otherwise, develop the Fighter Planning/Adjustment DED. Add the data values retrieved from the Target File and the Target Number.

If the number in the DED request is a Request Number use this number to retrieve the following data from the Preplanned CAS Request File:

- 1) Type A/C (Recommended)
- 2) Number of Sorties (Recommended)
- 3) First Ordnance Code (Recommended)
- 4) Second Ordnance Code (Recommended)

If an entry does not exist in the Preplanned CAS Request File for the Request Number output: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. Otherwise, develop the Fighter Planning/Adjustment DED. Add the data values retrieved from the Preplanned CAS Request File and the Request Number.

If the number in the DED request is a Mission Number which has a Mission Type equal to Preplanned CAS, Interdiction or Counter Air, retrieve the following data from the Preplanned Fighter Frag Order/Mission Schedule File:

- 1) Departure Base Code
- 2) Recovery Base Code
- 3) Type A/C
- 4) Number of Sorties
- 5) First Ordnance Code
- 6) Second Ordnance Code
- 7) Target Number
- 8) Request Number
- 9) TOT
- 10) First Alternate Target
- 11) Second Alternate Target

If the entry does not exist in the Preplanned Fighter Frag Order/Mission Schedule File for the Mission Number or the Mission Type is equal to CAP or Escort, output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

Otherwise, develop the Fighter Planning/Adjustment DED. Examine the data retrieved from the Preplanned Fighter Frag Order/Mission Schedule File. If the Departure Base Code is not equal to the Recovery Base Code, the Departure Base Code is for a Dispersal Base and is added to the display. Either the Target Number or the Request Number whichever contains a value is added to the display as the Requirement Number. All other data values are added to the display including the Mission Number used in requesting the DED.

If the number in the DED request is a Mission Number with a Mission Type equal to Immediate CAS, use the Unit Number portion of the Mission Number to retrieve the following data from the Immediate CAS Frag Order File:

- 1) Last Mission Number
- 2) Type A/C
- 3) Number of Sorties
- 4) Ordnance Code
- 5) Departure Base Code
- 6) Number of Sorties Scrambled

If an entry does not exist in the Immediate CAS Frag Order File for the Unit or the Last Mission Number retrieved from the file does not equal the Mission Number input in the DED request, output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. Otherwise, use the Unit Number to access the Unit Planning File and retrieve the Home Base Code.

Develop the Fighter Planning/Adjustment DED. Add the Last Mission Number, Type A/C and Ordnance Code to the DED. Examine the Departure Base Code. If it is not equal to the Home Base Code retrieved from the Unit Planning File, add it to the DED as the value for the Dispersal Base Code. Set the value for Number of Sorties in the DED equal to Number of Sorties minus Number of Sorties Scrambled.

- c. If the Mission Number input as part of the RECCE Planning/Adjustment DED request has a Mission Type equal to Preplanned RECCE, use the Mission Number to access the Preplanned RECCE Frag Order/Mission Schedule File. Retrieve the following data from the file:

- 1) Departure Base Code
- 2) Recovery Base Code
- 3) Type A/C
- 4) Number of Sorties
- 5) First Request Number
- 6) Second Request Number
- 7) Third Request Number
- 8) Fourth Request Number
- 9) First Request Number TOT

If the entry does not exist in the Preplanned RECCE Frag Order/Mission Schedule File output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

Otherwise, develop the RECCE Planning/Adjustment DED. Examine the data retrieved from the Preplanned RECCE Frag Order/Mission Schedule File. If the Departure Base Code is not equal to the Recovery Base Code, the Departure Base Code is for a Dispersal Base and is added to the display. All other data values are added to the display including the Mission Number used in requesting the DED. Set the value of the TOT/Request Code to one to indicate that the TOT value in the display is for the First Request Number.

If the Mission Number in the DED request has a Mission Type equal to Immediate RECCE, use the Unit Number portion of the Mission Number to retrieve the following data from the Immediate RECCE Frag Order File:

- 1) Last Mission Number
- 2) Type A/C
- 3) Number of Sorties
- 4) Departure Base Code
- 5) Number of Sorties Scrambled

If an entry does not exist in the Immediate RECCE Frag Order File for the Unit or the Last Mission Number retrieved from the file does not equal the Mission Number input in the DED request, output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. Otherwise, use the Unit Number to access the Unit Planning File and retrieve the Home Base Code for the Unit.

Develop the RECCE Planning/Adjustment DED. Add the Last Mission Number and Type A/C to the DED. Examine the Departure Base Code. If it is not equal to the Home Base Code retrieved from the Unit Planning File, add it to the DED as the value for the Dispersal Base Code. Set the value for Number of Sorties in the DED equal to the Number of Sorties minus the Number of Sorties Scrambled.

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3.1.2.4.3.2 Candidate Requirements Selection

The Candidate Requirements Selection information processing is initiated in response to the Candidate CAS Requirements Selection operator action, the Candidate Target Requirements Selection operator action or the Candidate RECCE Requirements Selection operator action. These actions are used to request displays of requirements which do not have missions assigned to them. The data contained in the operator actions include:

1. Candidate CAS Requirements Selection
 - a. Lowest Priority (1-4)
 - b. Type A/C (optional)
 - c. Number of Sorties (optional)
2. Candidate Target Requirements Selection
 - a. Lowest Priority (1-4)
 - b. Type A/C (optional)
 - c. Number of Sorties (optional)
 - d. Ordnance Code (optional)
 - e. TOT Interval (optional)
3. Candidate RECCE Requirements Selection
 - a. Lowest Priority (1-4)
 - b. Type RECCE (optional)

The range of values for the data input by the operator actions is specified in the Display Control and Generation Function. See Section 3.1.2.7.2.4.3.2. These values are used to check the input data under the constraints specified above within parentheses. When a data value is found to be in error, a Data Entry Display error report is generated. See Section 3.1.2.7.2.

The Candidate Requirements Selection information processing may also be reinitialized by a display page request. When this type of operator action is input, Candidate Requirements Selection information processing will examine the page number requested, retrieve the appropriate display page developed in steps b, c or d below and present this data to the operator who initiated the request.

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The following processing steps are required to develop the displays which present the unassigned requirements.

- a. Examine the operator action. If the action is a request for CAS Requirements, go to Step c. If it is for Target Requirements, go to Step d. If it is for RECCE Requirements, proceed with Step b.
- b. Examine each entry in the Preplanned RECCE Request File to determine if the entry meets the following criteria:
 1. The Originator's Priority is less than or equal to the Lowest Priority input by the operator.
 2. If type RECCE was input by the operator, it is equal to a type of Reconnaissance in the request.
 3. No mission (s) has been assigned to the request.

Develop a Candidate RECCE Requirements Display containing each entry which meets these criteria. Order these entries by Priority and LTIOV. The entry data in the display will include:

1. Request Number
2. Priority
3. Type (I or P)
4. Target Category
5. Target Location (first location)
6. Type of Reconnaissance
7. LTIOV

If a number of entries met the criteria defined above output: (Number)
CANDIDATE REQUIREMENTS. If no entry meets the criteria defined above output:
NO CANDIDATE REQUIREMENTS FOUND; ENTER NEW SELECTION. Terminate the
processing.

- c. Examine each entry in the Preplanned CAS Request File to determine if the entry meets the following criteria:
 1. The Originator's Priority is less than or equal to the Lowest Priority input by the operator.
 2. If Type A/C was input by the operator, it is equal to the Type A/C in the request.

3. If Number of Sorties was input by the operator, it is equal to or greater than Number of A/C Recommended in the request.
4. No mission has been assigned to the request.

Develop a Candidate CAS Requirements Display containing each entry which meets these criteria. Order these entries by Priority and Target Time (DTG1). The entry data in the display will include:

1. Request Number
2. Priority
3. Target Description
4. Target Location (first location)
5. Target Time
6. Ordnance
7. Number of A/C
8. Type A/C
9. Request Type

If a number of entries met the criteria defined above, output: (Number) CANDIDATE REQUIREMENTS. If no entry meets the criteria defined above, output: NO CANDIDATE REQUIREMENTS FOUND; ENTER NEW SELECTION. Terminate the processing.

- d. Examine each entry in the Target File to determine if the entry meets the following criteria:
 1. The Target Priority is less than or equal to the Lowest Priority input by the operator.
 2. If the Type A/C was input by the operator, it is equal to the Type A/C specified for the target.
 3. If Number of Sorties was input by the operator, it is equal or greater than the Sorties specified for the target.

4. If an Ordnance Code was input by the operator, it is equal to one of the Recommended Ordnance Codes specified for the Target.
5. If TOT Interval was input by the operator, the time check is not true that the TOT Interval start time is greater than the LTOT nor the TOT Interval end time is less than the DTOT.
6. No Fighter Mission(s) has been assigned to the Target.

(NOTE: A RECCE Mission may be assigned to the Target.)

Develop a Candidate Target Requirements Display containing each entry which meets these criteria. Order these entries by Target Priority and Desired Time Over Target (DTOT). The entry data in the display will include:

1. Target Number
2. Target Location
3. Target Priority
4. First Recommended Ordnance
5. Second Recommended Ordnance
6. A/C Type
7. Sorties
8. Fighter Support
9. EW Support
10. DTOT
11. LTOT

If a number of entries met the criteria defined above output: (Number)
CANDIDATE REQUIREMENTS. If no entry meets the criteria defined above output:
NO CANDIDATE REQUIREMENTS FOUND; ENTER NEW SELECTION. Terminate the processing.

3.1.2.4.3.3 Candidate Mission Selection

The Candidate Mission Selection information processing is initiated in response to the Candidate Fighter Missions Selection operator action, the Candidate RECCE Missions Selection operator action, the Candidate Fighter Mission Schedule Display Request operator action or the Candidate RECCE Mission Schedule Display Request operator action. These actions are used to develop displays of candidate missions which may be adjusted, i.e., reassigned, to a new requirement using the Fighter Planning/Adjustment or RECCE Planning/Adjustment operator action.

If the Candidate Fighter or RECCE Missions Selection operator action does not contain a Target or Request Number the process will develop a Candidate Fighter or RECCE Missions Display. These two displays may be multipage depending upon the number of candidates selected by the process. The operator will be presented with the first page of the display. He then may request the additional display pages.

If the Candidate Fighter or RECCE Missions Selection operator action contains a Target or Request Number the missions that would have been displayed are processed through Route Generation to obtain ETD, TOT, ETR and refueling data. The first two missions which can meet the TOT or the two missions which come closest to meeting the TOT are then displayed to the operator. If no TOT is specified by the operator action, the two missions with the earliest TOT's are displayed.

If a Candidate Fighter or RECCE Mission Schedule Display Request operator action is input to Candidate Mission Selection, the process will call Route Generation and develop a schedule display for the mission, Target or Request Number and TOT specified in the action. If a TOT is not specified in the display request, the process will assume an ETD equal to current time and develop route times based on this ETD.

The data contained in the Candidate Missions Selection operator actions include:

1. Candidate Fighter Missions Selection
 - a. Start ETD, the earliest ETD a mission can have to be considered.
 - b. End ETD, the latest ETD a mission can have to be considered.
 - c. Number of Sorties, the smallest Number of Sorties a mission can have to be considered.

- d. Ordnance Code, (optional) a code may be specified when considering fighter missions.
 - e. Highest Priority (optional): 1-4, to indicate that a mission which has this target priority, or a lower priority will be considered.
 - f. Alert First (optional): Yes, to indicate that Immediate CAS Missions should be considered first when selecting candidates.
 - g. Request Number (optional): the number of the request which may be reassigned to one of the candidate missions.
 - h. Target Number (optional), to indicate the target which may be reassigned to one of the candidate missions.
 - i. TOT (optional), the TOT desired for the Request or Target Number.
 - j. Ingress Point Code (optional), if required for the target or request.
 - k. Egress Point Code (optional), if required for the target or request.
2. Candidate RECCE Missions Selection:
- a. Start ETD, the earliest ETD a mission can have to be considered.
 - b. End ETD, the latest ETD a mission can have to be considered.
 - c. Number of Sorties, (optional) the smallest Number of Sorties a mission can have to be considered.
 - d. Highest Priority (optional): 1-4, to indicate that a mission which has this priority, or a lower priority will be considered.
 - e. Alert First (optional): yes, to indicate that Immediate RECCE Missions should be considered first when selecting candidates.
 - f. Request Number (optional): the number of the request which may be reassigned to one of the candidate missions.
 - g. TOT (optional), the TOT desired for the Request Number.
 - h. Ingress Point Code (optional), if required for the request.
 - i. Egress Point Code (optional), if required for the request.
3. Candidate Fighter Mission Schedule Display Request:
- a. Mission Number, to identify the candidate mission.
 - b. Request Number, the number of the request that may be reassigned to the candidate mission.

- c. Target Number, to indicate the target that may be reassigned to the candidate mission.
 - d. TOT (optional), the desired TOT for the Request or Target Number.
 - e. Ingress Point Code (optional), if required for the Target or Request.
 - f. Egress Point Code (optional), if required for the Target or Request.
4. Candidate RECCE Mission Schedule Display Request:
- a. Mission Number, to identify the candidate mission.
 - b. Request Number, the number of the request that may be reassigned to the candidate mission.
 - c. TOT (optional), the desired TOT for the Request Number.
 - d. Ingress Point Code (optional), if required for the Request.
 - e. Egress Point Code (optional), if required for the Request.

The range of values for the data input by the operator actions is specified in the Display Control and Generation Function. See Section 3.1.2.7.2.4.3.2. These values are used to check the input data items as specified above. When a data item value is found to be in error or no value has been entered for a required item, a Data Entry Display error report is generated. See Section 3.1.2.7.2.

The Candidate Missions Selection information processing may also be reinitialized by a display page request. When this type of operator action is input, Candidate Missions Selection information processing will examine the page number requested, retrieve the appropriate display page developed in step f below for the Candidate Fighter or RECCE Missions Display, and present this data to the operator who initiated the request.

The following processing steps are required to select the candidate missions and generate the displays.

- a. Examine the operator action that initiated the process. If the action contains a Mission Number it is a request for a Candidate Fighter or RECCE Mission Schedule Display. Proceed to step m. Otherwise examine the Alert First value to determine if it is set to YES. If it is proceed with steps b and c. If it is not set to YES, reverse the order of these processing steps.

- b. Determine if Immediate CAS or Immediate RECCE Missions have alert sorties available. Examine the operator action. If it is a Candidate Fighter Missions Selection action, access the Immediate CAS Frag Order File. If it is a Candidate RECCE Missions Selection action, access the Immediate RECCE Frag Order File.

Retrieve the following data from each entry in the file:

- 1) Last Mission Number
- 2) Ordnance Code, only from the CAS File
- 3) Duration of Alert
- 4) Departure Base Code
- 5) Number of Sorties
- 6) Number of Sorties Scrambled
- 7) A/C Type

Examine this data to see if it meets the following criteria:

- 1) The time block defined by the Start ETD and End ETD overlaps the Duration of Alert, i.e., the time check is not true that the Start ETD is greater than the Duration of Alert end time or the End ETD is less than the Duration of Alert start time. Both are not true to satisfy the overlap condition.
- 2) The Number of Sorties in the entry minus the Number of Sorties Scrambled is equal or greater than the Number of Sorties input by the operator or if these are RECCE sorties and Number of Sorties was not input, the Number of Sorties derived from the computation is equal to or greater than one.
- 3) If an Ordnance Code was input by the operator action, it agrees with the Ordnance Code in the file entry.

If the data meets the criteria save the following information for the display or additional processing:

- 1) Last Mission Number
- 2) Ordnance Code
- 3) Number of sorties derived from the computation in 2 above

- 4) Duration of Alert
- 5) Departure Base Code
- 6) A/C Type

If a Target or Request Number was input in the operator action proceed to step g. Otherwise, continue to examine each successive entry in the file until all entries have been examined.

- c. Determine if Preplanned CAS, Preplanned RECCE, Interdiction or Counter Air Missions are available.

Examine the operator action. If it is a Candidate Fighter Missions Selection action, access the Preplanned Fighter Frag Order/Mission Schedule File. If it is a Candidate RECCE Missions Selection action access the Preplanned RECCE Frag Order/Mission Schedule File.

Retrieve the following data from each entry in the file:

- 1) Mission Number
 - 2) Mission Type
 - 3) Mission Status
 - 4) Number of Sorties
 - 5) A/C Type
 - 6) Ordnance Code, up to two codes from the Fighter File
 - 7) ETD and ETR
 - 8) Target or Request Priority
 - 9) Target or Request Number
 - 10) Type of Reconnaissance
- Items 8, 9 and 10 may be repeated up to 4 times for RECCE Mission
- 11) Departure Base Location
 - 12) Departure Base Code
 - 13) FAC Location, for Preplanned CAS from the Fighter File
 - 14) Recovery Base Location
 - 15) Support Mission Number(s), up to two
 - 16) Number of Requests for a RECCE Mission

Examine the data to see if it meets the following criteria:

- 1) The Mission is not an Escort or CAP mission, i.e., the Mission Type is not equal to Escort or CAP
- 2) The Mission Status is not equal to D, Deleted, or C, Complete.
- 3) The mission ETD is not less than the Start ETD nor greater than the End ETD.
- 4) The Number of Sorties for the mission is not less than the Number of Sorties input by the operator, or if Number of Sorties was not input for RECCE missions a value of one is used.
- 5) If an Ordnance Code was input, it is equal to one of the Mission Ordnance Codes.
- 6) If a Highest Priority is input, it is not greater than the Target or Request(s) Priority(s).

If the data meets the criteria save all data items for display or later processing. If a Target or Request Number was input by the operator action proceed to step g. Otherwise, continue to examine each successive entry in the file until all entries have been examined.

- d. If steps b and c have been performed in the order specified by step a and no mission has been selected output: NO CANDIDATE MISSIONS FOUND; ENTER NEW SELECTION and terminate the processing.
- e. If steps b and c have been performed in the order specified by step a and at least one candidate mission has been selected, proceed to step f.
- f. Develop the Candidate Fighter or RECCE Missions Display. These displays will contain the following data for missions selected from steps b and c above.

For the Candidate Fighter Missions Display:

- 1) Mission Number
- 2) Number of Sorties
- 3) A/C Type

- 4) ETD/ETR or Duration of Alert
- 5) First Ordnance Code
- 6) Second Ordnance Code
- 7) Target or Request Number
- 8) Target or Request Priority

For the Candidate RECCE Missions Display:

- 1) Mission Number
- 2) Number of Sorties
- 3) A/C Type
- 4) ETD/ETR or Duration of Alert
- 5) Number of Requests
- 6) Request Number
- 7) Request Priority

Items 6 and 7 may be repeated up to two times.

These displays are ordered in the following manner. If Alert First was set to YES, the Immediate CAS or RECCE Mission will precede the Preplanned CAS, Interdiction, Counter Air or Preplanned RECCE Mission. If it is not set to YES, this order is reversed. In addition, all of the Preplanned CAS, Interdiction, Counter Air or Preplanned RECCE Missions are sorted by ETD.

Once the display has been developed output: (Number) CANDIDATE MISSIONS. Number is set to the number of candidates selected for display. Terminate the processing.

- g. If this is not the first candidate selected by step b or c above, proceed to step h. If a Target Number was input by the operator use the number to obtain target location from the Target File. If a Request Number was input, examine the number to determine if it is a RECCE or CAS request. If it is a RECCE request obtain the Target Location and Type of Reconnaissance from the Preplanned RECCE Request File. If it is a CAS request obtain the FAC Location and Target Location from the Preplanned CAS Request File. If either the Target Number or Request Number does not exist in the appropriate file output: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

- h. If the candidate mission is an Immediate CAS or Immediate RECCE Mission use the Unit Number portion of the candidate mission and the Departure Base Code to access the Unit Planning File to obtain Departure Base Location and Recovery (Home) Base Location for the Immediate CAS or Immediate RECCE Mission.
- i. If the candidate missions contain one or two Ordnance Codes establish the Weight of External Ordnance for each mission. Use the A/C type and Ordnance Code(s) to access the Ordnance Code File and Retrieve Weight of External Ordnance. If a mission has two Ordnance Codes select the larger value as the Weight of External Ordnance for the mission.
- j. Determine mission route times, refueling requirements, and tanker availability for the candidate mission. This processing is performed by Route Generation, see Section 3.1.2.4.3.8. Inputs to Route Generation include:
 - 1) Mission Number
 - 2) Number of Sorties input by the operator action or if Number of Sorties was not input for RECCE Missions, this value is set to one
 - 3) A/C Type
 - 4) Weight of External Ordnance for fighter missions only
 - 5) Departure Base Location
 - 6) FAC Location, only if a CAS Request Number was input by operator
 - 7) Ingress Point Code, if input by operator
 - 8) Target Location
 - 9) Egress Point Code, if input by operator
 - 10) Recovery Base Location
 - 11) TOT, if input by operatorThe output from the Route Generation includes:
 - 1) ETD
 - 2) TOT
 - 3) ETR

- 4) Position Point, of the mission if the mission is in progress
 - 5) Pre-Strike Refueling Area Code, time and fuel required
 - 6) Post-Strike Refueling Area Code, time and fuel required
 - 7) Fail Flag, if the mission cannot be adjusted, if excessive refueling is required, or if a tanker is not available for refueling when required by the mission.
- k. Repeat steps h, i, and j for each candidate mission until two candidate missions are identified which meet the TOT specified by the operator input or if no TOT was input by operator process all Candidate Missions identified by steps b and c above; and select the two missions with the earliest TOT's. If a TOT is specified by the operator and two missions cannot be found to satisfy the TOT, select the missions which came closest to meeting the TOT. If only one mission meets the TOT select an additional mission which comes closest to meeting the TOT. Do not consider missions which have received a Fail Flag from Route Generation in step j. If the Fail Flag is set for all candidates output: CANDIDATES DO NOT MEET REQUESTED TOT and terminate the processing.
- If a TOT was specified by the operator input and two missions have been selected which do not meet the TOT, output: NO CANDIDATE MISSIONS FOUND; ENTER NEW SELECTION and proceed to step l to generate a display of the missions with the earliest TOT's.
- If one or two missions have been selected which meet the TOT input by the operator, or if no TOT was input by the operator proceed to step l to generate the display.
- l. Generate a display of up to two candidate missions selected in step k. This Candidate Fighter or RECCE Mission Schedule Display will include the data items specified in f above, plus:
 - 1) Target or Request Number input by operator
 - 2) Type of Reconnaissance, if a RECCE request was input by operator
 - 3) Number of Sorties input by operator or if Number of Sorties was not input for RECCE missions, the value of one
 - 4) TOT
 - 5) ETD/ETR

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- 6) Position Point, if the mission is in progress
- 7) Pre-Strike Refueling Area Code, Time and Fuel Required
- 8) Post-Strike Refueling Area Code, Time and Fuel Required
- 9) Departure Base Code
- 10) First Support Mission
- 11) Second Support Mission

- m. Retrieve the mission data for the Mission Number specified in the Candidate Fighter or RECCE Mission Schedule Display Request. Examine the Mission Number to determine the Mission Type. If the Mission Type is equal to Immediate CAS or Immediate RECCE use the Unit Number portion of the Mission Number to retrieve the Frag Order data specified in Step b. above. If the Mission Type is equal to Preplanned CAS, Interdiction, Counter Air or Preplanned RECCE, use the Mission Number to retrieve the Frag Order data as specified in Step c. above.

For any of the following conditions output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the process.

1. The Mission Number has a Mission Type not specified above in this step.
 2. The Immediate Mission Number does not equal the Last Mission Number retrieved from the Immediate CAS or RECCE Frag Order File.
 3. The Number of Sorties is not greater than the Number of Sorties Scrambled in the Immediate CAS or RECCE Frag Order data.
 4. The mission data cannot be found in the Preplanned Fighter or RECCE Frag Order/Mission Schedule File.
 5. The Mission Status is equal to D, Deleted, or C, Complete, in the Preplanned Fighter or RECCE Frag Order/Mission Schedule data.
- n. Proceed to process the display request as specified in Steps g,h,i and j above. However, for Step j, the Number of Sorties input to Route Generation will be set equal to one of the following:
1. the Number of Sorties retrieved from the Preplanned Fighter or RECCE Frag Order/Mission Schedule File.
 2. the Number of Sorties minus the Number of Sorties Scrambled retrieved from the Immediate CAS Frag Order File if the value is not greater than four. If it is greater a value of four is input to Route Generation.

3. a value of one for an Immediate RECCE Mission.

In addition for Step j, a Display Alert Flag is sent to Route Generation.

When a Display Alert Flag is input to Route Generation and the Route Generation process determines that an alert condition exists, the process will not return a Fail Flag to Candidate Mission Selection. It will output the appropriate alert message and terminate the processing.

- o. Generate the Candidate Fighter or RECCE Mission Schedule Display.
This display will contain values for the mission and new requirement identified in the display request. These values are specified in steps f and l above with one exception: the value for Number of Sorties input by the operator is set equal to the Number of Sorties input to Route Generation as determined in step n above.

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3.1.2.4.3.4 Fighter Planning/Adjustment

The Fighter Planning/Adjustment information processing is initiated in response to the Fighter Planning/Adjustment operator action. This action is used to plan or modify Preplanned CAS, Interdiction and Counter Air Missions. The data contained in the operator action includes:

1. Unit Number, if a new mission is to be planned
2. Mission Number, if this is a mission adjustment and an existing mission is to be modified
3. Dispersal Base Code, if aircraft are to be utilized from a dispersal base
4. Type Aircraft
5. Number of Sorties
6. Ordnance Code
7. Second Ordnance Code, if a second code is required
8. Request Number, if a Preplanned CAS Mission is to be planned or modified
9. Target Number, if an Interdiction or Counter Air Mission is to be planned or modified
10. TOT
11. First Alternate Target, if required for an Interdiction or Counter Air Mission
12. Second Alternate Target, if required for an Interdiction or Counter Air Mission
13. Ingress Point Code for Interdiction or Counter Air Mission
14. Egress Point Code for Interdiction or Counter Air Mission
15. Remarks, if provided by the operator

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The range of values for the data input by the operator action is defined in the Display Control and Generation Function. See Section 3.1.2.7.2.4.3.2. These values are used to check the input data items as specified above. When a data item is found to be in error, a Data Entry Display error report is generated. See Section 3.1.2.7.2.

The following processing steps are required to process the data input by the operator action and to generate a new mission or adjust an existing mission. In either case a new Frag Order Entry is produced, and if the operator action specified a mission adjustment, the original Frag Order Entry is deleted.

- a. Determine if a Request or Target Number has been input. If a Request Number, retrieve the following data from the Preplanned CAS Request File:

- | | |
|-----------------------|--------------------|
| 1) Priority | 5) FAC Frequency |
| 2) Target Description | 6) FAC Location |
| 3) Target Location | 7) Fighter Support |
| 4) FAC Call Sign | 8) EW Support |

If a Target Number has been input, retrieve the following data from the Target File:

- | | |
|-----------------------|--------------------|
| 1) Target Priority | 4) Mission Type |
| 2) Target Description | 5) Fighter Support |
| 3) Target Location | 6) EW Support |

For each Alternate Target specified retrieve Priority, Description, and Location.

If either the Target Number(s) or the Request Number does not exist in the files, output the following message: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE, and terminate the processing.

- b. Establish the Mission Type from the Mission Type specified in the Target Data or if a Request Number was input the Mission Type is set to Preplanned CAS.

- c. Use the Unit Number or the Unit Number portion of the Mission Number input by the operator action, the Dispersal Base Code, if input, and the Mission Type to obtain the following data from the Unit Planning File:

- 1) Unit Call Sign
- 2) Unit Call Sign Sequence Number
- 3) Dispersal Base Location, A/C Type(s) at the location and Home Base Location, or if Dispersal Base Code was not input, Home Base Location, Home Base Code and A/C Type(s) at Home Base.
- 4) Mission Sequence Number

If the Unit Number does not exist in the Unit Planning File, output: UNIT NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. If Dispersal Base Code was input and does not exist for the unit, output: DISPERSAL BASE CODE NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

If the A/C type specified in the operator action is not available at the location specified output: A/C TYPE NOT AVAILABLE AT BASE SPECIFIED; ENTER NEW VALUE and terminate the processing.

- d. Use the A/C Type and Ordnance Code(s) to access the Ordnance Code File to determine:

- 1) Type Munitions
- 2) Weight of External Ordnance

If the Ordnance Code(s) specified for the A/C Type is not in the file output: ORD CODE NOT AVAILABLE FOR A/C TYPE; ENTER NEW VALUE and terminate the processing.

- e. Use the Base Code, home or dispersal, to access the Tactical Base Munitions Status File and determine if the types of munitions are available at the departure base. If the types of munitions are not available output: INSUFFICIENT BASE MUNITIONS; SELECT ANOTHER UNIT and terminate the processing.

- f. Develop the Mission Number. Use the Unit Number or the Unit Number portion of the Mission Number input by the operator action, the Julian Day, the Mission Type established in step b. and the Mission Sequence Number from step c. as the Mission Number, ie. 122-252-CA04. Place dashes between the Unit Number and the Julian Day, and between the Julian Day and the Mission Type.
- g. Develop the Mission Route, establish refueling requirements and determine if refueling requirements can be satisfied. This processing is performed in Route Generation, see Section 3.1.2.4.3.8.

Inputs to Route Generation include:

For a Preplanned CAS Mission:

- 1) Departure Base Location (home or dispersal)
- 2) FAC Location
- 3) Target Location
- 4) Recovery Base Location (home)
- 5) TOT
- 6) A/C Type
- 7) Weight of External Ordnance
(If two Ordnance Codes were input, this is the larger value).
- 8) Mission Number, developed in step f. above
- 9) Number of Sorties
- 10) Mission Type
- 11) Mission Number of the mission to be adjusted, if input in the operator action.

For Interdiction or Counter Air Missions:

- 1) Departure Base Location (home or dispersal)
- 2) Ingress Point Code
- 3) Target Location
- 4) Egress Point Code
- 5) Recovery Base Location

- 6) TOT
- 7) A/C Type
- 8) Weight of External Ordnance (largest value)
- 9) Mission Number developed in Step f.
- 10) Number of Sorties
- 11) Mission Type
- 12) Mission Number of the mission to be adjusted, if input by the operator action.

Route Generation will provide times for all locations and points specified above, offset point codes, and refueling data if required. If refueling is required and the tanker capability does not exist, this will be indicated as an error condition by Route Generation.

- h. Develop a new entry in the Preplanned Fighter Frag Order/Mission Schedule File using the Mission Number established by Step f., Mission Data input by the operator action, Target or Request Data, Route data, Refueling data, Call Sign plus the Sequence Number, Recall Word from the Recall Word File, and Control Agency Call Sign/Frequency from the Base/Control Agency File. Establish the ETD and ETR in the mission schedule portion of the entry. If an ATD and Mission Call Sign were input from Route Generation, add the ATD to the entry and use the Mission Call Sign to replace the Call Sign plus Sequence Number specified above as the Mission Call Sign in the entry. An ATD and Mission Call Sign are provided by Route Generation for the mission adjustment of a mission in progress. If the operator action contained a Mission Number, add this Mission Number to the entry. Set the Transmit Flag in the entry for the Message Preparation Function. All items of information required for the entry are specified by mission type in the Preplanned Fighter Frag Order Mission/Property Matrix. See Section 3.1.3.

If an entry is not available in the Preplanned Fighter Frag Order/Mission Schedule File output: ENTRY NOT AVAILABLE (File I.D.); PROCESS TERMINATING and terminate the processing.

1. Update the Unit Planning File in the following manner:

- 1) If a Mission Call Sign was not input from Route Generation, increment the Call Sign Sequence Number by the Number of Sorties planned for the missions.
- 2) Increase the Mission Sequence Number by one.
- 3) Decrement the Number of Sorties Available for the base and A/C type utilized by the Number of Sorties planned for the mission.
- 4) Increment the Number of Sorties Committed for the base and A/C type utilized by the Number of Sorties planned for the mission.

j. Update the Unit Mission File to include:

- 1) Mission Number
- 2) Home or Dispersal Base Code
- 3) A/C Type
- 4) Number of Sorties
- 5) ETD
- 6) ETR

If an entry is not available in the file output: ENTRY NOT AVAILABLE (File I.D.); PROCESS CONTINUING on the User Station printer and continue.

k. Update the Target or Preplanned CAS Request File with the related mission data: Mission Number, Number of Sorties, First Ordnance Code, Second Ordnance Code, and TOT.

If the file entry is full and cannot be updated output: ENTRY FULL (File I.D. and Object); PROCESS CONTINUING on the User Station printer and continue.

l. Examine the Fighter Support and EW Support indicators obtained from Step a. above. If both indicators are set output: FIGHTER AND EW SUPPORT REQUIRED. If the Fighter Support indicator is set output: FIGHTER SUPPORT REQUIRED. If the EW Support indicator is set output: EW SUPPORT REQUIRED.

Generate a Fighter Mission Display. See Section 3.1.2.7.3.2.2.

- m. If the operator action contained a Mission Number for a mission adjustment, use this Mission Number to activate the Mission Deletion processing. If the Mission Number is for an Immediate CAS Mission provide the Number of Sorties assigned in the new Frag Order Entry. This value will be used to decrement the number of alert sorties previously planned for Immediate CAS. If the Mission Number is not for an Immediate CAS Mission provide the Mission Number developed in Step f. above for the new Frag Order Entry. This new number will be used to establish the relationship between the old Frag Order Entry of the adjusted mission and the new entry.

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3.1.2.4.3.5 RECCE Planning/Adjustment

The RECCE Planning/Adjustment information processing is initiated in response to the RECCE Planning/Adjustment operator action. This action is used to plan or modify Preplanned RECCE Missions. The data contained in the operator action includes:

1. Unit Number, if a new mission is to be planned.
2. Mission Number, if this is a mission adjustment and an existing mission is to be modified.
3. Dispersal Base Code, if aircraft are to be utilized from a dispersal base.
4. Type Aircraft (Up to 4 requests may be specified by the operator. Only 1 is required.
5. Number of Sorties (If more than 1 Request Number is specified, the sequence of these requests indicates the order in which they are to be accomplished by the mission.)
6. Request Number 1
7. Request Number 2
8. Request Number 3
9. Request Number 4
10. TOT, for one Request Number
11. TOT/Request Number Code (1-4) indicates which Request Number has been assigned a TOT.
12. Ingress Point Code, if provided by the operator
13. Egress Point Code, if provided by the operator
14. Remarks, if provided by operator.

The range of values for the data input by the operator action is defined in the Display Control and Generation Function. See Section 3.1.2.7.2.4.3.2. These values are used to check the input data items as specified above. When a data item is found to be in error, a Data Entry Display error report is generated. See Section 3.1.2.7.2.

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The following processing steps are required to process the data input by the operator action and to generate a new mission or modify an existing mission. In either case, a new Frag Order Entry is produced, and if the operator action specified a mission adjustment, the original Frag Order Entry is deleted.

- a. For each Request Number specified in the operator input, obtain the Target Location from the Preplanned RECCE Request File. If the Request Number does not exist in the files, output the following message: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE, and terminate the processing.
- b. Set the Mission Type equal to Preplanned RECCE.
- c. Use the Unit Number or the Unit Number portion of the Mission Number input by the operator action, the Dispersal Base Code, if input, and the Mission Type to obtain the following data from the Unit Planning File:
 - 1) Unit Call Sign
 - 2) Unit Call Sign Sequence Number
 - 3) Dispersal Base Location, A/C Type(s) at the location and Home Base Location, or if Dispersal Base Code was not input, Home Base Location, Home Base Code and A/C Type(s) at Home Base.
 - 4) Mission Sequence Number

If the Unit Number does not exist in the Unit Planning File, output: UNIT NUMBER NOT RECOGNIZED; ENTER NEW VALUE, and terminate the processing. If Dispersal Base Code was input and does not exist for the Unit, output: DISPERSAL BASE CODE NOT RECOGNIZED; ENTER NEW VALUE, and terminate the processing.

If the A/C type specified in the operator action is not available at the location specified, output: A/C TYPE NOT AVAILABLE AT BASE SPECIFIED; ENTER NEW VALUE and terminate the processing.

- d. Develop the Mission Number. Use the Unit Number or the Unit Number portion of the Mission Number input by the operator action, the Julian Day, the Mission Type established in step b. and the Mission Sequence Number from step c. as the Mission Number, i.e., 555-252-PRO7. Place dashes between the Unit Number and Julian Day, and between the Julian Day and Mission Type.
- e. Develop the Mission Route, establish refueling requirements and determine if refueling requirements can be accomplished. This processing is performed in Route Generation, see Section 3.1.2.4.3.8.

Inputs to Route Generation include:

- 1) Departure Base Location (Home or Dispersal)
- 2) Ingress Point Code (optional)
- 3) Target Location 1
- 4) Target Location 2 (optional)
- 5) Target Location 3 (optional)
- 6) Target Location 4 (optional)
- 7) Egress Point Code (optional)
- 8) Recovery Base Location (home)
- 9) TOT
- 10) TOT/Request Number Code (optional)
- 11) A/C Type
- 12) Mission Number, developed in step d.
- 13) Mission Type
- 14) Number of Sorties
- 15) Mission Number of the mission to be adjusted, if input in the operator action.

Route Generation will provide times for all locations and points specified above, Offset Point Codes, and refueling data if required. If refueling is required and the tanker capability does not exist, this will be indicated as an error condition by Route Generation.

f. Develop a new entry in the Preplanned RECCE Frag Order/Mission Schedule File using:

- 1) Mission Number established in step d. above
- 2) Mission data input by the operator
- 3) Request description data from the Preplanned RECCE Request File including Target Number
- 4) Total number of Requests assigned to the mission (1-4)
- 5) Route Offset Point Codes and Refueling data from Route Generation
- 6) Call Sign and Sequence Number from step c. above
- 7) Recall Word from the Recall Word File
- 8) Control Agency Call Sign and Frequency from the Base/Control Agency File.

Establish ETD and ETR in the Mission Schedule portion of the entry. If an ATD and Mission Call Sign were input from Route Generation, add the ATD to the entry and use the Mission Call Sign to replace the Call Sign plus Sequence Number specified in (6) above. The ATD and Mission Call Sign are provided by Route Generation for the mission adjustment of a mission in progress.

If the operator action contained a Mission Number for a Mission Adjustment, add this Mission Number to the entry.

Set the Transmit Flag in the Frag Order entry for the Message Preparation Function.

If an entry is not available in the Preplanned RECCE Frag Order/Mission Schedule File output: ENTRY NOT AVAILABLE (File ID); PROCESS TERMINATING and terminate the processing.

g. Update the Unit Planning File in the following manner:

- 1) If a Mission Call Sign was not input from Route Generation, increment the Call Sign Sequence Number by the Number of Sorties planned for the mission.
- 2) Increase the appropriate Mission Sequence Number by one.
- 3) Decrement the Number of Sorties available for the base and A/C type utilized, by the Number of Sorties planned for the mission.
- 4) Increment the Number of Sorties committed for the base and A/C type utilized by the Number of Sorties planned for the mission.

h. Update the Unit Mission File to include:

- 1) Mission Number
- 2) Home or Dispersal Base Code
- 3) A/C Type
- 4) Number of Sorties
- 5) ETD
- 6) ETR

If an entry is not available in the file output: ENTRY NOT AVAILABLE (File ID); PROCESS CONTINUING on the User Station printer and continue.

- i. For each Request input by the operator action update the Preplanned RECCE Request File with the related mission data: Mission Number, Number of Sorties, and TOT. If a Request has an associated Target Number in the Preplanned RECCE Request File, use this number to access the Target File. Update the entry in the Target File to include the related mission data.

If the file entry is full and cannot be updated output: ENTRY FULL (File ID and Object); PROCESS CONTINUING on the User Station printer and continue. If an entry does not exist in the Target File output: ENTRY NOT FOUND (File ID and Object); PROCESS CONTINUING on the User Station printer and continue.

- j. For each Request Number specified for the mission, obtain the Fighter and EW Support indicators from the Preplanned RECCE Request File. Examine the indicators. If both a Fighter and an EW Support indicators are set output: FIGHTER AND EW SUPPORT REQUIRED. If a Fighter Support indicator is set, output: FIGHTER SUPPORT REQUIRED. If an EW Support indicator is set, output: EW SUPPORT REQUIRED.

Generate a RECCE Mission Display. See Section 3.1.2.7.3.2.2.

- k. If the operator action contained a Mission Number for a mission adjustment, use this Mission Number to activate the Mission Deletion processing. See Section 3.1.2.4.3.7. This process will delete the old Frag Order Entry and update other system files to reflect the mission adjustment. If the Mission Number is for an Immediate RECCE Mission, provide the Number of Sorties assigned to the modified mission in the new Frag Order Entry. This value will be used to decrement the number of alert sorties previously planned for Immediate RECCE. If the Mission Number is not for an Immediate RECCE Mission, provide the Mission Number developed in step d. above for the new Frag Order entry. The new number will be used to establish the relationship between the old Frag Order entry of the adjusted mission and the new entry.

3.1.2.4.3.6 Support Mission Planning

The Support Mission Planning information processing is initiated in response to the Support Mission Planning operator action. This action is used to plan CAP, EW and Escort Missions. The data contained in the operator action includes:

1. Unit Number
2. Dispersal Base Code, if aircraft are to be utilized from a dispersal base
3. Mission Type: CAP, EW, or Escort
4. Type Aircraft
5. Number of Sorties
6. Ordnance Code/Type of EW
7. Supported Mission Numbers (One mission is specified for an Escort Mission or for an EW Mission when a Rendezvous Point is specified for the EW Mission. From 0 to 5 missions may be specified for a CAP Mission or for an EW Mission when a Control/Orbit Point is specified for the EW Mission).
8. Control/Orbit/Rendezvous Point
(A Control/Orbit Point is specified for a CAP Mission and may be specified for an EW Mission. A Rendezvous Point is specified for an Escort Mission and may be specified for an EW Mission.)
9. Time Required at Control/Orbit Point, if a CAP or EW Mission with Control/Orbit Point is to be planned.
10. Duration of Time at Control/Orbit Point for a CAP or EW Mission
11. Ingress Point Code for CAP or EW Mission
12. Egress Point Code for CAP or EW Mission
13. Remarks, if provided by the operator.

The range of values for the data input by the operator action is defined in the Display Control and Generation Function. See Section 3.1.2.7.2.4.3.2. These values are used to check the input data items as specified above. When a data item is found to be in error, a Data Entry Display error report is generated. See Section 3.1.2.7.2.

The following processing steps are required to process the data input by the operator action and to generate the new support mission:

- a. Examine each of the Supported Mission Numbers input by the operator action to determine if these missions are in the Preplanned Fighter or Preplanned RECCE Frag Order/Mission Schedule File. Access the appropriate file for each mission to determine that an entry does exist in the file for the Mission Number. If an entry does not exist, output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.
- b. Use the Unit Number input by the operator action, the Dispersal Base Code, if input, and the Mission Type to obtain the following data from the Unit Planning File:
 - 1) Unit Call Sign
 - 2) Unit Call Sign Sequence Number
 - 3) Dispersal Base Location, A/C Type(s) at the location and Home Base Location, or if Dispersal Base Code was not input, Home Base Location, Home Base Code and A/C Type(s) at Home Base.
 - 4) Mission Sequence Number.

If the Unit Number does not exist in the Unit Planning File, output: UNIT NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

If Dispersal Base Code was input and does not exist for the unit, output: DISPERSAL BASE CODE NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

If the A/C type specified in the operator action is not available at the location specified, output: A/C TYPE NOT AVAILABLE AT BASE SPECIFIED; ENTER NEW VALUE and terminate the processing.

- c. If the Mission Type is equal to CAP or Escort, use the A/C Type and Ordnance Code to access the Ordnance Code File to determine:

- 1) Type Munitions
- 2) Weight of External Ordnance

If the Ordnance Code specified for the A/C Type is not in the file output: ORD CODE NOT AVAILABLE FOR A/C TYPE; ENTER NEW VALUE and terminate the processing.

Use the Base Code, home or dispersal, to access the Tactical Base Munitions Status File and determine if the Types of Munitions are available at the departure base. If the types of munitions are not available output: INSUFFICIENT BASE MUNITION; SELECT ANOTHER UNIT and terminate the processing.

- d. Develop the Mission Number. Use the Unit Number, Julian Day, Mission Type and Mission Sequence Number from step b. as the Mission Number, i.e., 122-252-CPO9. Place dashes between the Unit Number and the Julian Day, and between the Julian Day and the Mission Type.
- e. Develop the Mission Route, establish refueling requirements and determine if refueling requirements can be accomplished. This processing is performed in Route Generation, see Section 3.1.2.4.3.8.

Inputs to Route Generation include:

- 1) Departure Base Location (Home or Dispersal)
- 2) Ingress Point Code
- 3) Control/Orbit Point
- 4) Egress Point Code
- 5) Recovery Base Location (Home)
- 6) Time Required at Control/Orbit Point

- 7) Duration of Time at Control/Orbit Point
- 8) A/C Type
- 9) Weight of External Ordnance, only for a CAP Mission
- 10) Mission Number
- 11) Number of Sorties
- 12) Mission Type

For an Escort or EW Mission with a Rendezvous Point specified:

- 1) Departure Base Location (Home or Dispersal)
- 2) Rendezvous Point
- 3) Recovery Base Location
- 4) Mission Number of support mission
- 5) A/C Type
- 6) Weight of External Ordnance, only for an Escort Mission
- 7) Mission Number
- 8) Number of Sorties
- 9) Mission Type

Route Generation will provide times for all locations and points, Ingress Point Code, Egress Point Code, Offset Point Codes, and refueling data if required. If refueling is required and the tanker capability does not exist, this will be indicated as an error condition by Route Generation.

- f. For an Escort or CAP Mission, develop a new entry in the Preplanned Fighter Frag Order/Mission Schedule File. For an EW Mission, develop a new entry in the EW Frag Order/Mission Schedule File. Use the following data to construct these entries:

- 1) Mission Number established in step d.
- 2) Mission data including Supported Mission Number(s) input by the operator.
- 3) Route and Refueling data from Route Generation.
- 4) Call Sign and Sequence Number from step b. above.
- 5) Recall Word from the Recall Word File.
- 6) Control Agency Call Sign and Frequency from the Base/Control Agency File.

Establish ETD and ETR in the Mission Schedule portion of the entry.

Set the Transmit Flag in the Frag Order entry for the Message Preparation Function.

If an entry is not available in the file output: ENTRY NOT AVAILABLE (File I. D.); PROCESS TERMINATING and terminate the processing.

- g. Update the Frag Order Entry of each of the supported missions to include the Mission Number of the Support Mission. If the Support Mission is an Escort or an EW Mission with a Rendezvous Point specified, include Rendezvous Point and Time in the update for the supported mission.

Set the Transmit Flag for each updated Frag Order Entry.

If a file entry is full and cannot be updated output: ENTRY FULL (File I.D. and Object); PROCESS CONTINUING on the User Station printer and continue.

- h. Update the Unit Planning File in the following manner:

- 1) Increment the Call Sign Sequence Number by the Number of Sorties planned for the mission.
- 2) Increase the appropriate Mission Sequence Number by one.
- 3) Decrement the Number of Sorties Available for the base and A/C type utilized, by the number of Sorties planned for the mission.
- 4) Increment the Number of Sorties committed for the base and A/C type utilized by the Number of Sorties planned for the mission.

i. Update the Unit Mission File to include:

- 1) Mission Number
- 2) Home or Dispersal Base Code
- 3) A/C type
- 4) Number of Sorties
- 5) ETD
- 6) ETR

If an entry is not available in the file output: ENTRY NOT AVAILABLE
(File I.D.); PROCESS CONTINUING on the User Station printer and continue.

j. Generate the Mission Display. See Section 3.1.2.7.3.2.2. If an
EW Mission was planned use the RECCE display form. If a CAP or ESCORT
Mission was planned use the Fighter form.

3.1.2.4.3.7 Mission Deletion

The Mission Deletion information processing is initiated in response to the delete mission operator action or by the Fighter Planning/Adjustment and RECCE Planning/Adjustment processes when an operator action has initiated either of these processes to adjust a mission. As specified in Sections 3.1.2.4.3.4 and 3.1.2.4.3.5 when a Fighter or RECCE Mission is to be modified, a new Frag Order Entry is generated. The old entry is deleted by the Mission Deletion process.

The Mission Deletion information processing will delete a Preplanned CAS, Preplanned RECCE, Interdiction, Counter Air, CAP, Escort or EW Mission in response to the delete mission operator action. It will delete a Preplanned CAS, Preplanned RECCE, Interdiction, Counter Air Mission or decrement the number of alert sorties for Immediate CAS or Immediate RECCE Missions when initiated by either the Fighter or RECCE Planning/Adjustment process.

When Mission Deletion is initiated by an operator action, the operator action will contain the Mission Number of the mission to be deleted. When Mission Deletion is initiated by the Fighter or RECCE Planning/Adjustment process, the Mission Number is provided by the process and if the Mission Number is for an Immediate CAS or Immediate RECCE Mission it is accompanied by Number of (alert) Sorties to be deleted. If the Mission Number is not for an Immediate CAS or Immediate RECCE Mission it is accompanied by the Mission Number of the new Frag Order entry.

The following processing steps are required to delete a mission or adjust the number of alert sorties available for Immediate CAS or Immediate RECCE Missions and update the related system files:

- a. If a Mission Number and Number of Sorties are input, this is an adjustment of alert sorties, proceed to step m.

- b. If a Mission Number is input, examine the Mission Number to determine the Mission Type. If the Mission Type is equal to Preplanned CAS, Interdiction, Counter Air, CAP or Escort, use the Mission Number to retrieve the following data from the Preplanned Fighter Frag Order/Mission Schedule File. If the Mission Type is equal to Preplanned RECCE, retrieve the data from the Preplanned RECCE Frag Order/Mission Schedule File. If EW, retrieve from the EW Frag Order/Mission Schedule File.

- 1) Mission Status
- 2) Number of Sorties
- 3) A/C Type
- 4) Departure Base Code
- 5) Target Number if Mission Type is equal to Counter Air or Interdiction.
- 6) Request Number if Mission Type is equal to Preplanned CAS.
- 7) Request Number(s) and Target Number(s) if the Mission Type is equal to Preplanned RECCE. There may be up to four Request Numbers assigned to a Preplanned RECCE Mission. There may also be a Target Number associated with each Request Number.
- 8) Support Mission Numbers. A Preplanned CAS, Preplanned RECCE, Interdiction or Counter Air Mission may be supported by up to two other missions. An Escort Mission supports one mission. A CAP or EW Mission may support up to five missions.
- 9) Tanker Mission Numbers. Each mission may be supported by up to two Tanker Missions.

If the Mission Number entry cannot be found in the appropriate file, output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

- c. Check the Mission Status. If Mission Status is set to Delete, the mission has been deleted. Output: (Mission Number) PREVIOUSLY DELETED and terminate the processing.
- d. Use the Unit Number portion of the Mission Number, Number of Sorties, A/C Type and Departure Base Code to update the Unit Planning File.
 - 1) Increment the Number of Sorties Available for the base and A/C Type utilized, by the Number of Sorties planned for the missions.
 - 2) Decrement the Number of Sorties Committed for the base and A/C Type utilized, by the Number of Sorties planned for the mission.

If the Unit does not exist in the Unit Planning File output: ENTRY NOT FOUND (File I.D., Object); PROCESS CONTINUING on the User Station printer and continue. If the Base Code or A/C Type cannot be found output: ENTRY NOT FOUND (File I.D, Object, Property); PROCESS CONTINUING on the User Station printer and continue.

- e. Delete the following from the Unit Mission File:
 - 1) Mission Number
 - 2) Home or Dispersal Base Code
 - 3) A/C Type
 - 4) Number of Sorties
 - 5) ETD
 - 6) ETR
- If the entry does not exist in the file continue with step f.

- f. If a Target Number was retrieved from step b. and the Mission Type is equal to Interdiction or Counter Air, delete the following data for the Target Number entry in the Target File:

- 1) Mission Number
- 2) Number of Sorties
- 3) Ordnance Code
- 4) Second Ordnance Code
- 5) TOT

If the target number does not exist in the file output: ENTRY NOT FOUND (File I. D., and Object); PROCESS CONTINUING on the User Station printer and continue. If the Mission Number does not exist for the target in the file continue with step g.

- g. If a Request Number was retrieved from step b., and the Mission Type is equal to Preplanned CAS, delete the data as specified above in step f. for the Request Number entry in the Preplanned CAS Request File.

If the Request Number does not exist in the file output: ENTRY NOT FOUND (File I.D. and Object); PROCESS CONTINUING on the User Station printer and continue. If the Mission Number does not exist for the Request Number in the file continue with step h.

- h. If one or more Request Numbers were retrieved from step b. and the Mission Type equals Preplanned RECCE, delete the following for each Request Number entry in the Preplanned RECCE Request File:

- 1) Mission Number
- 2) Number of sorties
- 3) TOT

If a Target Number is associated with the Request Number, use the Target Number to delete the same items from the entry in the Target File.

If the Request Number, Target Number or Mission Number does not exist in the files proceed as specified in step g. above.

- i. For each Support Mission associated with the mission which is being deleted, determine the Mission Type of the Support Mission and access the appropriate file as specified in step b. to delete the Mission Number of the mission being deleted from the Frag Order Entry of the Support Mission. Also, set the Transmit Flag for the Support Mission Frag Order Entry.

If the Support Mission number does not exist in the files output: ENTRY NOT FOUND (File I.D., Object); PROCESS CONTINUING on the User Station printer and continue. If the Mission Number of the mission being deleted is not in the file entry for the Support Mission continue with step j.

- j. For each Tanker Mission Number retrieved by step b. delete the scheduled mission refueling from the entry specified by the Tanker Mission Number in the Air Refueling Mission Schedule File. Update each entry in the following manner using the Mission Number and Number of Sorties of the mission being deleted:
 - 1) Delete the Support Mission equal to the Mission Number.
 - 2) Take the Support Fuel associated with the deleted Support Mission and add it to Unscheduled Fuel, then delete the Support Fuel.
 - 3) Decrement Total Sorties by Number of Sorties of the mission being deleted.
 - 4) Examine each of the 5 minute time blocks and delete the mission number in the time block, if it is equal to the Mission Number.

If the Tanker Mission Number does not exist in the file output:
ENTRY NOT FOUND (File I.D.,Object); PROCESS CONTINUING on the
User Station printer and continue. If the Mission Number of the
mission being deleted is not in the file continue with step k.

- k. If Mission Deletion was initiated by the Fighter or RECCE Planning/
Adjustment process, set Mission Status equal to Deleted and the
Transmit Flag in the Frag Order Entry. Enter DELETED and the new
Mission Number in the Remarks portion of the entry. If Mission
Deletion was initiated by an operator action set Mission Status
equal to Deleted and the Transmit Flag in the Frag Order Entry,
and enter DELETED in the Remarks portion of the entry.
- l. Develop the Mission Deleted Display and terminate the processing.
This display will contain the Mission Number of the deleted mission,
the Mission Numbers of the Support or Supported Missions which have
had the deleted Mission Number removed from their Frag Order Entries
and the Target Number or the Request Number(s) which were assigned
to the deleted Mission. If the Mission Deletion process was initiated
by the Fighter or RECCE Planning/Adjustment process, this display is
output on the User Station printer.
- m. Examine the Mission Number to determine the Mission Type: Immediate
CAS or Immediate RECCE. If Immediate CAS access the Immediate CAS
Frag Order File, if Immediate RECCE access the Immediate RECCE Frag
Order File. Determine the Frag Order Entry which has the Last Mission
Number in its block of Mission Numbers equal to the Mission Number
input to this process. Update this entry in the following manner:
 - 1) Decrement the sequence number portion of the Last Mission
Number by one.
 - 2) Decrement the Number of Sorties in the entry by the number
input to this process.
 - 3) Set the Transmit Flag for the entry.

Retrieve the First Mission Number in the block of mission numbers.

If the entry does not exist in the file output: ENTRY NOT FOUND
(File I.D., Object); PROCESS CONTINUING on the User Station printer
and continue.

- n. Use the First Mission Number to decrement the Number of Sorties in the Unit Mission File by the Number of Sorties input to the process. If the remaining sorties equal zero, delete the total entry from the Unit Mission File. If the entry does not exist in the file continue with step o.
- o. Develop the Mission Deleted Display and terminate the processing. The display will contain the Mission Number input to the process and the number of sorties deleted. It will be output on the User Station printer.

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3.1.2.4.3.8 Route Generation

The Route Generation information processing is initiated by the Fighter Planning/Adjustment, the RECCE Planning/Adjustment, the Support Mission Planning and the Candidate Mission Selection information processing. Route Generation develops mission routes and route times, establishes refueling requirements, determines tanker availability and schedules the refuelings at the tankers.

Inputs to Route Generation are identified in Figure 12. These inputs are processed in the following manner. Route Generation will first check to see if the input is from Candidate Mission Selection. If it is, this input will be processed as a mission adjustment with one exception: refueling will not be scheduled at the tankers.

Next, Route Generation will check to see if the input is a mission adjustment from Fighter Planning/Adjustment, or RECCE Planning/Adjustment. If it is, Route Generation will determine if the mission is in progress, ie. an Actual Time of Departure has been received for the mission. If the mission is not in progress, route points, route times and refueling requirements will be developed from the Departure Base. If the mission is in progress an extrapolated Position Point is developed and included in the route data. A check is made to see if the mission has already refueled. If it has, this is considered in developing refueling requirements. Also, the process will determine if the mission may be adjusted, ie. it is not at or past a target or Ingress Point.

Route Generation will next determine if the input is for an Escort or EW mission with a Rendezvous Point specified. This input will come from Support Mission Planning. If an Escort or EW mission with a Rendezvous Point is specified, Route Generation will examine the route data of the supported mission to determine a time required for the Rendezvous Point, the route points and times during which the mission requires support and the total time the Escort

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or EW mission must provide support. This data is then used in developing the route points, route times and refueling requirements of the Escort or EW mission.

All other inputs to Route Generation are processed in a similar manner and do not require special processing as indicated above. These inputs are from Fighter Planning/Adjustment, RECCE Planning/Adjustment and Support Mission Planning.

Outputs from Route Generation returned to the information processing which initiated Route Generation are identified in Figure 13.

The processing steps required to accomplish Route Generation information processing are described below. In order to accomplish these steps, Route Generation must maintain and process the proper sequence of route points. To do this, Route Generation should contain a table of possible route points designators ordered as specified in Figure 14.

- a. If Route Generation was initiated by Candidate Mission Selection proceed to step y. to determine if the candidate mission is in progress.
- b. If Route Generation was initiated by the Fighter Planning/Adjustment or the RECCE Planning/Adjustment process and the Mission Number of the mission to be adjusted was input to Route Generation, ie. this is a mission adjustment, proceed to step y. to determine if the mission to be adjusted is in progress.
- c. Examine the Mission type. If the Mission type is equal to Escort or EW and the EW route data contains a Rendezvous Point proceed to step cc.

FIGURE 12
INPUTS TO ROUTE GENERATION

	Fighter Planning/Adjustment		RECCE Planning/Adjustment		Support Mission Planning			Candidate Mission Selection	
	PCAS	INT/CA	PRECCE	PRECCE	CAP	Escort	EW	EW(Escort)	PCAS/INT/CA/ICAS PRECCE/IRECCE
Mission Number of the mission to be adjusted	X	X		X					
Mission Number	✓	✓	✓	✓	✓	✓	✓	✓	✓
Mission Type	✓	✓	✓	✓	✓	✓	✓	✓	✓
Number of Sorties	✓	✓	✓	✓	✓	✓	✓	✓	✓
A/C type	✓	✓			✓	✓		✓	✓
Weight of External Ordnance	✓	✓			✓	✓	✓	✓	✓
Departure Base Location	✓	✓			✓	✓	✓	✓	✓
Rendezvous Point									
FAC Location	✓							X	X
Ingress Point Code		✓		X	✓		✓	X	X
Target Location #1	✓	✓		✓				✓	✓
Target Location #2			X						
Target Location #3			X						
Target Location #4			X						
Control/Orbit Point					✓		✓		
Egress Point		✓	X	✓	✓		✓	X	X
Recovery Base Location	✓	✓	✓	✓	✓		✓	✓	✓
TOT	✓	✓	✓	✓				X	X
TOT/Request No. Code			X						
Time at C/O Point				✓	✓		✓		
Duration of Time at C/O Point				✓	✓		✓		
Supported Mission Number					✓		✓		
Display Alert Flag								X	X

✓ = Required
X = Optional

FIGURE 13
OUTPUT FROM ROUTE GENERATION

	Fighter Planning/ Adjustment		RECCE Planning/ Adjustment	Support Mission Planning				Candidate Mission Selection
	PCAS	INT/CA		CAP	Escort	EW	EW (Escort)	
Departure Base Loc. & ETD	✓	✓	✓	✓	✓	✓	✓	X
Rendezvous Point & Time					✓		✓	
FAC Location	✓				X			
Offset Point-Ingress, Time and Code		X	X	X	X	X	X	
Ingress Point & Time		✓	X	✓	X	✓	X	
Target Loc. #1 & TOT	✓	✓	✓		✓		✓	X
Target Loc. #2 & TOT			X		X		X	
Target Loc. #3 & TOT			X		X		X	
Target Loc. #4 & TOT			X		X		X	
Control/Orbit Point & Time				✓		✓		
Offset Point-Egress, Time and Code		X	X	X	X	X	X	
Egress Point & Time		✓	X	✓	X	✓	X	
Recovery Base Loc. & ETR	✓	✓	✓	✓	✓	✓	✓	X
Pre-Strike:								
Refuel Control Point								
Area Code	X	X	X	X	X	X	X	X
Refuel Time								
Fuel								
Tanker Mission Number								
Tanker Call Sign	X	X	X	X	X	X	X	
Tanker Frequency								
Post-Strike:								
Refuel Control Point								
Area Code	X	X	X	X	X	X	X	X
Refuel Time								
Fuel								
Tanker Mission Number								
Tanker Call Sign	X	X	X	X	X	X	X	
Tanker Frequency								
Fail Flag								X
ATD	X	X	X					
Mission Call Sign	X	X	X					
Position Point								X
Ingress & Egress Point Codes					X		X	

✓ = Required
X = Possible

FIGURE 14

ROUTE POINT SEQUENCE

1. Departure Base Location
2. Position Point
3. Pre-Strike Refueling Point
4. Position Point
5. Rendezvous Point
6. FAC Location
7. Offset Point
8. Ingress Point
9. Control/Orbit Point
10. Target #1
11. Target #2
12. Target #3
13. Target #4
14. Egress Point
15. Offset Point
16. Post-Strike Refueling Point
17. Recovery Base Location

- d. If the Mission type is equal to Preplanned CAS proceed to step f.
- e. Examine the route data input to the process to determine if there is an Ingress and Egress Point Code in the data. If there is, convert these codes to lat/long positions using the Ingress/Egress Point File. This file may also contain an Offset Point for the Ingress/Egress Point. If the Ingress Point has an associated Offset Point, place this Offset Point location prior to the Ingress Point location in the mission route data and develop the Ingress Offset Point Location Code. The Ingress Offset Point Location Code is equal to the Ingress Point Code plus an "0", eg. if the Ingress Point Code is AA the Ingress Offset Point Location Code is set to AAO. If the Egress Point has an associated Offset Point, place the Offset Point location following the Egress Point location in the mission route data and develop the Egress Offset Point Location Code as specified above. If an Ingress or an Egress Point Code does not exist in the Ingress/Egress Point File, output: INGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE or EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. If both do not exist in the file output: INGRESS/EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.
- f. Use the A/C type and Weight of External Ordnance to access the Aircraft Characteristics File. For a Mission type equal to Preplanned RECCE or EW the Weight of External Ordnance is equal to zero. Obtain the following data from the Aircraft Characteristics File:
 - 1) Total Usable Fuel
 - 2) Speed in Knots
 - 3) Fuel Consumption in PPHIn addition, if the Mission Type is Preplanned CAS, Interdiction or Counter Air use the A/C type and a Weight of External Ordnance equal to zero to access the file and obtain Post-Strike Fuel Consumption in PPH.
- g. Compute the distance between each location in the mission route.
- h. Use the Speed to compute the flying time between each location in the mission route.
- i. Adjust the Flying times in the following manner:
 - 1) If the Mission type is equal to Immediate or Preplanned RECCE add seven minutes (parameter 0-20) to the flying time between each target location and the next route point location to allow for time in the target area.

- 2) If the Mission type is equal to CAP or EW and the EW Mission is not escorting a mission add the Duration of Time at Control Orbit Point to the flying time between the Control/Orbit Point location and the next route point location.
 - 3) If the Mission type is equal to Interdiction, Counter Air, Immediate CAS or Preplanned CAS add a time increment equal to two minutes (parameter 0-20) multiplied by the Number of Sorties to the time between the target location and the next route point location to allow for time in the target area.
 - 4) If there is a Pre-Strike and/or Post-Strike Refueling Point specified in the route data add a time increment equal to five minutes (parameter 0-20) multiplied by the Number of Sorties to the time between each Refueling Point and the next route point location to allow for refueling time.
- j. Determine if the mission requires additional refueling. If no refueling points were specified in the mission route data sum the flying time developed in steps h. and i. above to determine total flying time for the mission. Use the Fuel Consumption value from step f. to find the total fuel required. However, if the Mission Type is equal to Preplanned CAS, Interdiction or Counter Air determine both the Pre-Strike and Post-Strike flying times, i.e., flying time from Departure Base to the target and flying time from the Target to Recovery Base. Use the Fuel Consumption value times the Pre-Strike Time plus the Post-Strike Fuel Consumption value times the Post-Strike flying time to find the total fuel required. If the total fuel required is greater than Total Usable Fuel, proceed to step m. to obtain a Pre-Strike Refueling Point.
- If a Pre-Strike Refueling Point is specified in the mission route data sum the flying times from this point to the last point in the mission route or if the Mission Type is equal to Preplanned CAS, Interdiction or Counter Air determine the Pre-Strike and Post-Strike flying times

segments from the Pre-Strike Refueling Point. Proceed as above to find total fuel required. If total fuel required is greater than Total Usable Fuel, proceed to stem m. to obtain a Post-Strike Refueling Point.

If both a Pre-Strike and Post-Strike Refueling Point are specified, sum the flying times between these two points or if the Mission Type is equal to Preplanned CAS, Interdiction or Counter Air determine both the Pre-Strike and Post-Strike time segments between the refueling points. Compute total fuel required between the refueling points as specified above. If total fuel required is greater than Total Usable Fuel, the mission cannot be scheduled. If Route Generation was initiated by Candidate Mission Selection and the Display Alert Flag is not set, set a Fail Flag and return to Candidate Mission Selection. If Route Generation was initiated by another process or the Display Alert Flag is set, output: EXCESSIVE REFUELING REQUIRED; SELECT ANOTHER UNIT and terminate processing.

k. Develop mission times for each route point location.

If the Mission Type is equal to Immediate RECCE, Immediate CAS, Preplanned CAS, Interdiction or Counter Air and the mission is not in progress, i.e., there is no Position Point in the route data, and a TOT has been specified, use the TOT and the Target Location in the following manner:

- 1) For each location prior to the Target Location develop the time at the location by subtracting from the TOT the sum of the flying times between the target location and the location for which the time is being computed.
- 2) For each location following the Target Location add the sum of the flying time to the TOT.

If the Mission is in progress, regardless of the availability of a TOT, use the Position Point and the current time to develop the mission times as specified above. If the mission is not in progress and no TOT was specified use the Departure Base Point and current time to develop the mission times.

If the Mission Type is equal to Preplanned RECCE and is not in progress but has a TOT specified and more than one Target Location, use the TOT/Request Code to determine the Target Location for which the TOT has been assigned. Treat all other Target Locations as other route points locations and develop the times as specified in 1) and 2) above. For all other conditions determine mission times for the Preplanned RECCE Mission in the same manner as indicated for Immediate RECCE Missions.

If the Mission type is CAP or EW and the EW Mission contains a Control/Orbit Point, use the time at Control/Orbit Point and the Control/Orbit Point Location to establish the other location times as specified above.

If the Mission type is Escort or EW and the EW route data contains a Rendezvous Point, use the Rendezvous Point time to establish other location times as specified above. Then add the supported mission locations and times which fall between the Rendezvous Point and the last Target Point, Egress Point or Offset Point following the Egress Point identified in step ff.

Examine the ETD. If the ETD is less than current time and the mission is not in progress, ie. there is no Position Point in the route data either output: ETD LESS THAN CURRENT TIME; REPLAN THE MISSION and terminate the processing, or if Route Generation was initiated by Candidate Mission Processing and the Display Alert Flag is not set, set the Fail Flag and return to Candidate Mission Processing.

All time computations must consider the possibility that a portion of the missions schedule may extend into the next day's time period.

- l. If the mission route contains refueling points, the mission requires refueling, proceed to step p. to determine refueling requirements, tanker availability and to schedule the refueling. If the mission does not require refueling return to the process which initiated Route Generation with the route point locations and mission time at each point.
- m. Access the Refueling Area File to obtain the lat/long location of the Refueling Control Point and the Area Code. Insert this location and Area Code into the mission route data as either the Pre-Strike Refueling Point and Area Code or the Post-Strike Refueling Point and Area Code whichever is required by step j. above.
- n. Update the route point distance and time values. Delete the old distance and time between the route point preceeding the new refueling point and the route point following it. Establish new distances and times from the preceeding point to the refueling point and from the refueling point to the next point. Develop these distances and times as specified in steps g, h, and i.
- o. Proceed to step j. to determine if the mission requires additional refueling.
- p. Examine the mission route data to obtain the Pre-Strike Refueling Point and the route point following the Pre-Strike Refueling point. If the route point following the Pre-Strike Refueling Point is a Position Point, this is a mission adjustment of a mission in progress and the original mission has already refueled. Pre-Strike refueling is not required. Proceed to step v. to check for Post-Strike refueling. If the route point following the Pre-Strike Refueling Point is not a Position Point determine the Pre-Strike Refueling requirements. Sum the flying times developed in step h. and i. between the first

route point and the refueling point. Use the Fuel Consumption value to find fuel required. Multiply the fuel requirement by Number of Sorties to find the total Pre-Strike Fuel required for the mission.

- q. Use the Pre-Strike Fuel and Time at Pre-Strike Refueling Point determined in step k. to access the Air Refueling Mission Schedule File. Look for a tanker mission schedule with the following characteristics:
- 1) Scheduled Time on Station is less than Time at Pre-Strike Refueling Point.
 - 2) Schedule Time Off Station is greater than Time at Pre-Strike Refueling Point.
 - 3) Unscheduled Fuel is greater than or equal to Pre-Strike Fuel. If this is a mission adjustment and the mission to be adjusted is scheduled to refuel at this tanker, the Unscheduled Fuel plus the Fuel Required for the mission to be adjusted is used in the computation. If Route Generation was called by Candidate Mission Selection and the candidate mission is already scheduled for the Tanker, the Unscheduled Fuel plus the Fuel Required for the scheduled candidate mission is used in the computation.
 - 4) There is a set of consecutive five minute time blocks equal in number to the Number of Sorties and starting within \pm one time block of the time at Pre-Strike Refueling Point. If this is a mission adjustment these time blocks may contain the mission number of the mission to be adjusted. If Route

Generation was called by Candidate Mission Selection these time blocks may already contain the Candidate Mission Number.

- r. If a tanker mission cannot be found to meet the characteristics specified in q. above, refueling is not available. If Route Generation was initiated by Candidate Mission Selection and the Display Alert Flag is not set, set a Fail Flag and return to the Candidate Mission Selection process. If Route Generation was initiated by another process or the Display Alert Flag is set, output: REFUELING UNAVAILABLE; REPLAN THE MISSION and terminate further processing. If a tanker mission is found which meets the required characteristics, and Route Generation was not initiated by Candidate Mission Selection proceed to step s. to schedule the refueling, otherwise store the Pre-Strike Tanker Mission Number in the mission route data and go to step v. to check for Post-Strike Refueling.
- s. Retrieve the following from the Tanker mission in the Air Refueling Mission Schedule File:
- 1) Mission Number
 - 2) Call Sign
 - 3) Frequency
 - 4) Total Sorties
- t. Set the following data for the Tanker in the Air Refueling Mission Schedule File:
- 1) Mission Number of the mission to be refueled.
 - 2) Fuel Required equal to Pre-Strike Fuel.
 - 3) Unscheduled Fuel equal to the previous value of Unscheduled Fuel minus Pre-Strike Fuel.
 - 4) Total Sorties equal to the previous value plus Number of Sorties for the mission.
 - 5) Mission Number of the mission to be refueled in each of the five minute time blocks as determined in step q-4.

- u. Add the following data to the mission route data for Pre-Strike Refueling:

- 1) Tanker Mission Number
- 2) Tanker Call Sign
- 3) Tanker Frequency
- 4) Fuel Required

- v. Examine the mission route data to obtain a Post-Strike Refueling Point. If there is no point return to the process which initiated Route Generation with the route point locations, mission time at each point and Pre-Strike Refueling data. There will be no Pre-Strike Tanker Schedule data if the return is to Candidate Mission Selection.

If there is a Post-Strike Refueling Point determine the Post-Strike Refueling requirements. Compute the total fuel required from Pre-Strike Refueling Point to the last point in the mission route as specified in the second paragraph of j. above. Subtract Total Usable Fuel from the computed value and then multiply by the Number of Sorties to determine the total Post-Strike Fuel required for the mission.

- w. Use the Post-Strike Fuel and Time at Post-Strike Refueling Point to access the Air Refueling Mission Schedule File. Proceed as in steps q. thru u. to establish Post-Strike Refueling for the mission route data. However, substitute the following characteristics check for step q-3.

Unscheduled Fuel is greater than or equal to Post-Strike Fuel. If this is a mission adjustment and the mission to be adjusted is scheduled to refuel at this tanker, then a) the Unscheduled Fuel plus the Fuel Required for the mission to be

adjusted is used in the computation if the Tanker has not been specified in the mission route data for Pre-Strike Refueling; or b) if the Tanker was specified for Pre-Strike Refueling the Unscheduled Fuel plus the Fuel Required for the mission to be adjusted minus the amount of fuel required for Pre-Strike Refueling is used.

If Route Generation was called by Candidate Mission Selection and the candidate mission is already scheduled for the Tanker, then a) the Unscheduled Fuel plus the Fuel Required for the scheduled candidate mission is used in the computation if the Tanker has not been specified in the mission route data for Pre-Strike Refueling; or b) if the Tanker was specified for Pre-Strike Refueling, the Unscheduled Fuel plus the Fuel Required for the candidate mission minus the amount of fuel required for Pre-Strike Refueling is used.

If Route Generation was not called by Candidate Mission Selection and a Tanker cannot be found to meet the Post-Strike Fuel requirements for the mission and Pre-Strike Refueling was scheduled for the mission, delete the Pre-Strike Refueling data from the Air Refueling Mission Schedule File established by step t before generating the output: REFUELING UNAVAILABLE; REPLAN THE MISSION and terminating the processing . If Route Generation was called by Candidate Mission Selection and the Display Alert Flag is set, generate the output and terminate the processing.

- x. Return to the process which initiated Route Generation with the route point locations, mission time at each point and the refueling data.
- y. Examine the Mission Number of the candidate mission or the mission to be adjusted to determine the Mission Type. If the Mission Type is equal to Immediate CAS or Immediate RECCE and Route Generation was not called by Candidate Mission Selection examine the appropriate Immediate Frag Order File to determine if the Mission Number exists in the file. If it does proceed to step e. If it is not in the file output: MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. If the Mission Type is equal to Preplanned RECCE use the Mission Number

to access the Preplanned RECCE Frag Order/Mission Schedule File. If the Mission Type is equal to Preplanned CAS, Interdiction or Counter Air access the Preplanned Fighter Frag Order/Mission Schedule File. Retrieve the following data from the file:

- 1) Actual Time of Departure (ATD)
- 2) Route Point Locations
- 3) Route Point Times
- 4) Pre-Strike Tanker Mission Number
- 5) Mission Call Sign

If the entry does not exist in the file for the Mission Number, output:
MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing.

- z. If the ATD is not set proceed to step e., the mission is not in progress.
- aa. For a mission in progress, use the Route Point Locations and associated times to estimate the present location of the mission. Use current time to identify the last point and next point to be reached by the mission. Extrapolate the position of the mission based on these two points, the difference in time between them and the current time.
- bb. Examine the last point reached by the mission and all preceeding points. If any of these points include a Target or Ingress Point, the mission cannot be considered for adjustment. If Route Generation was initiated by Candidate Mission Selection and the Display Alert Flag is not set, set a Fail Flag and return to Candidate Mission Selection. If Route Generation was initiated by another process or the Display Alert Flag is set, output: ADJUSTMENT NOT POSSIBLE; SELECT ANOTHER MISSION and terminate the processing.

If any of these points is a Pre-Strike Refueling Point insert this location and the Pre-Strike Tanker Mission Number in the mission route data. Insert the present location of the mission developed in step aa. into the Position Point following the Pre-Strike Refueling Point in the mission route data.

If none of the points is a Pre-Strike Refueling Point insert the present location of the mission into the Position Point preceeding the Pre-Strike Refueling Point in the mission route data. If Route Generation was initiated by Fighter Planning/Adjustment or RECCE Planning/Adjustment save the ATD and the Mission Call Sign as part of the mission route data to be output to the initiating process. Go to step e.

- cc. Examine the Mission Number of the supported mission to determine the Mission Type. If the Mission Type is equal to Preplanned RECCE use the Mission Number to access the Preplanned RECCE Frag Order/Mission Schedule File. If the Mission Type is equal to Preplanned CAS, Interdiction or Counter Air, access the Preplanned Fighter Frag Order/Mission Schedule File. Retrieve the following mission route data from the file:
- 1) Route Point Locations and Codes
 - 2) Route Point Times
 - 3) Number of Sorties
- dd. Take the Rendezvous Point input to the process and insert it into the mission route data for the supported mission.
- ee. Compute the Rendezvous Point Time. Use the adjacent Route Point Locations and their associated times, and the Rendezvous Point location to extrapolate a time for the Rendezvous Point.
- ff. Compute the total time the support mission will support the Preplanned CAS, Interdiction, Counter Air or Preplanned RECCE Mission. This will be the time at the last Target Point, Egress Point or Offset Point following the Egress Point whichever of these points is last in the sequence of points for the supported mission minus the time at the Rendezvous Point developed in step ee.

- gg. Insert the time at Rendezvous Point and the Target Point, Egress Point or Offset Point selected in step ff. into the mission route data for the support mission. Use the total support time developed in step ff. as the flying time between these two points.
- hh. Use the processes as specified in steps f, g, and h above to compute flying time between all other points in the support mission route. If the Route Point following the Rendezvous Point is a Target Point adjust the flying time between the Target Point and the next Route Point by the values specified in i-1 or 3, depending upon the Mission Type and Number of Sorties specified for the supported mission.
- ii. Proceed to step j. to look for refueling requirements.

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3.1.2.4.3.9 SAR Assignment

The SAR Assignment information processing is initiated in response to the SAR Assignment operator action. This action is used to assign a SAR Mission to a SAR Requirement. The data contained in the operator action includes:

1. Mission Number of the SAR Mission
2. Requirements Number of the SAR Requirement
3. Remarks, if provided by the operator

The following processing steps are required to assign a SAR Mission to a SAR Requirements:

- a. Use the SAR Requirements Number input by the operator action to access the appropriate entry in the SAR Requirements File. If no entry exists for the number, output: REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE and terminate the processing. Add the SAR Mission Number input by the operator action to the file entry. If the entry is full and the SAR Mission Number cannot be added output: ENTRY FULL (File I.D., Object); PROCESS TERMINATING and terminate the processing. Retrieve the Mission Number of the Aircraft in Distress or Down, its Call Sign, Location, and Estimated Touchdown Point from the entry.
- b. Use the SAR Mission Number input by the operator action to access the SAR Mission entry in the SAR Frag Order/Mission Schedule File. If no entry exists for the Mission number, output: MISSION NUMBER NOT RECOGNIZED: ENTER NEW VALUE, delete the SAR Mission Number from the SAR Requirements File entry and terminate the processing. If an entry exists add the SAR Requirements Number, the Mission Number and the Call Sign of the Aircraft in Distress or Down to the entry. Examine the Airborne/Ground Indicator. If it is set to Ground add Location to the Entry as the Destination of the SAR Mission, otherwise, examine the Estimated Touchdown Point. If it contains a location or airfield add this value to the entry as the Destination of the SAR Mission. If it does not contain a location or airfield add Location to the entry.

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If Remarks were input by the operator add these Remarks to the entry.
Set the Transmit Flag in the entry for the Message Preparation Function.

c. Output the following message: SAR ASSIGNMENT COMPLETED.

3.1.2.5 Message Preparation Function

An Adjustment Message is required whenever a change is made to the scheduled operations for the day. These changes may be in the form of diversions of active missions, rescheduling of planned missions or initial scheduling of new missions. An Adjustment Message is a formal notification of a mission requirement and constitutes a directive to the units involved in executing the mission.

Adjustment Messages are prepared and output by this function in response to an operator action directing that this process be performed. The message formats are a function of mission type and do not vary with the operational status of the mission at the time the adjustment is made. Individual message formats are given in Section 3.1.2.5.4.

When the Send FRAG Adjustment action is taken, this function processes individually each mission which has been flagged for output by the Mission Adjustment function. The processing involves formatting and editing appropriate data from the FRAG Order/Mission Schedule Files, adding addressee data, appending header and trailer, and causing the completed message to be output on the system printer. The Send SAR action causes similar processing, the only difference being that only SAR missions are considered.

3.1.2.5.1 Source and Type of Inputs

3.1.2.5.1.1 File Requirements

3.1.2.5.1.1.1 FRAG Order/Mission Schedule Files

These files contain all pertinent data on missions scheduled to be flown in the course of the day's operations. Included for each mission is an indicator which, when set, identifies the mission as one for which a FRAG Order Adjustment Message should be prepared. This indicator is set by the Mission Adjustment function when a new mission is scheduled or a scheduled mission is modified; it is reset by this function when an Adjustment Message covering the mission has been composed. The files required by this function are:

- A. Preplanned Fighter
- B. Preplanned Reconnaissance
- C. Immediate Close Air Support
- D. Immediate Reconnaissance
- E. Electronic Warfare
- F. Search and Rescue

The specific properties in these files which are used in the construction of individual messages are represented by the data headings shown in the message formats (Section 3.1.2.5.4).

3.1.2.5.1.1.2 Message Distribution Files

These files contain prestored information relating message recipients to the tasked unit, the mission type, and, where applicable, the requesting agency.

3.1.2.5.1.1.2.1 Unit FRAG Distribution (Adjustment) File

This file gives the action addressee and up to three information addressees based on the unit identifier contained in the mission number. It is also used to determine information addressees based on support mission numbers.

3.1.2.5.1.1.2.2 Mission Type Distribution (Adjustment) File

This file contains the agencies designated as information addressees for each type of mission.

3.1.2.5.1.1.2.3 Requesting Agency Distribution (Adjustment) File

This file relates the agency designator contained in the request number to an information addressee.

3.1.2.5.1.2 Table Requirements

3.1.2.5.1.2.1 System Status Table

The System Status Table is used as the source of effective Julian date and FRAG order number included in the "Subject" portion of the message headers. These data are entered into the table when the system is initialized.

3.1.2.5.1.3 Operator Actions

3.1.2.5.1.3.1 Prepare FRAG Order Adjustment

This action initiates normal Adjustment Message processing.

3.1.2.5.1.3.2 Prepare SAR

This action initiates the processing for SAR messages only.

3.1.2.5.2 Destination and Type of Outputs

3.1.2.5.2.1 Files

3.1.2.5.2.1.1 Output Message Transmission Storage File

As each Adjustment Message is completed, it is stored in this file for output via the system printer.

3.1.2.5.2.2 Displays

3.1.2.5.2.2.1 FRAG Adjustment Complete

When all designated missions have been processed, the operator who took the Prepare FRAG Order Adjustment action is notified by this display.

3.1.2.5.3 Information Processing

Adjustment Message processing is initiated in response to either the Prepare FRAG Order Adjustment or the Prepare SAR action. Once initiated, this function continues to operate until a message has been prepared for each mission which qualifies. In the case of SAR, qualification consists of the transmit indicator being set for the mission and the mission type being "SR". For other mission processing, qualification requires only that the transmit indicator be set. Each mission is treated as an entity with all processing required to generate a message being performed before the next mission is considered.

This function interfaces directly with Display Control and Generation and System Control; it interfaces indirectly with Mission Adjustment via the FRAG Order/Mission Schedule Files.

The processing sequence for Adjustment Message Preparation is essentially the same whether the function is initiated by the Prepare FRAG Order Adjustment action or the Prepare SAR action. The only difference is that when called by the Prepare SAR action, only the SAR Mission Schedule File is processed. The specific processing performed is as follows:

1. The process is initiated when an operator takes the Prepare FRAG Order Adjustment action or the Prepare SAR action.
2. The first (or next) mission in the FRAG Order/Mission Schedule Files is checked to determine whether the mission has been tagged by Mission Adjustment for output. If it has been tagged, the processing proceeds; if it has not been tagged, a check is made to see if there are any more missions to be processed. If there are, the tag check is repeated for the next mission; if not, Display Control and Generation is requested to output the FRAG Adjustment Complete display and the function exits to System Control.
3. The mission entry in the FRAG Order/Mission Schedule File is checked to see if the Delete indicator is set; if it is set, the mission cancellation message is prepared; if it is not set, the mission entry is formatted and edited in accordance with the mission type. In composing the message for outputs, lines with all null values are suppressed. The maximum length messages for each type are illustrated in Section 3.1.2.5.4.
4. The list of recipients of the message is determined from the Message Distribution Files on the basis of mission type, tasked organization, support missions and Request Number. This list, along with header and trailer information is added to the formatted message (see Section 3.1.2.5.4).
5. The "Subject" portion of the header is completed by adding the effective date and FRAG Order number from the System Status Table (See Section 3.1.2.5.1.2.1).

6. The completed message is stored in the Output Message Storage Transmission file and an indicator is set requesting that the contents of the file be printed.
7. The indicator tag set by Mission Adjustment is reset for this mission. The process then returns to Step 2 at the point where the check is made to determine if any missions remain to be processed.

3.1.2.5.4 Message Formats

This section contains the formats for all of the messages prepared by this function for output on the system printer. Each message consists of a header followed by formatted mission data.

3.1.2.5.4.1 Headers

The header for each message is in the same form regardless of mission type. The form is as follows:

TO: (Action Addressee from Unit FRAG Distribution File -
Section 3.1.2.5.1.1.2.1)

FROM: TACC

SUBJECT: Adjustment to FRAG Order No. XX, Effective Period
XXXXX/0001 to XXXXX/2400 (FRAG Order Number and date
from Status Table - Section 3.1.2.5.1.2.1)

DISTRIBUTION: (Information Addressees - Sections 3.1.2.5.1.1.2.1, .2, .3)

3.1.2.5.4.2 Mission Data

Mission data formats are uniquely defined for each mission type. The formats given below show the maximum data content for each message. In cases where all data entries in a line are null for a particular mission, the line is suppressed and will not appear on the printout. In addition to the mission oriented messages, the "Delete" message is given. The format for this message is independent of mission type.

3.1.2.5.4.2.1 INT, CA and ESCORT

MSN-NO	CALLSIGN	A/C	SORTIES	ORD-1/2	RECALL
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XX	XXXX/XXXX	XXXXXXXXXX
TGT-NO	TOT	PRI	DESC	AREA	
XXXX	XXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX
TGT-LOC-A	LOC-B	LOC-C	LOC-D	LOC-E	LOC-F
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
ALT-TGT-1	PRI	DESC	LOC		
XXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX		
ALT-TGT-2	PRI	DESC	LOC		
XXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX		
DEP	REND-POINT	REND-TIME	INGRESS	TIME	TIME
XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
CTRL-AGENCY	CTRL-FREQ				
XXXXXXXXXXXX	XXXXX				
RECOVERY					
XXXX					
PRE-FUEL	TIME	LBS	CALLSIGN	FREQ	
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXX	
POST-FUEL	TIME	LBS	CALLSIGN	FREQ	
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXX	
SUPPORT-MSN 1	SUPPORT-MSN 2				
XXXXXXXXXXXX	XXXXXXXXXXXX				
REMARKS					

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3.1.2.5.4.2.2 PCAS

MSN	CALLSIGN	A/C	SORTIES	ORD-1/2	RECALL
XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXX	XX	XXXX/XXXX	XXXXXXXXXXXX

REQ-NO	TOT	PRI	DESC	AREA
XXXXX	XXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX

TGT-LOC-A	LOC-B	LOC-C	LOC-D	LOC-E	LOC-F
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

FAC-CALLSIGN	FAC-FREQ	FAC-LOC
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

DEP	REND-POINT	REND-TIME
XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

CTRL-AGENCY	CTRL-FREQ
XXXXXXXXXXXX	XXXX

RECOVERY
XXXX

PRE-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXX	XXXXXXXXXXXX	XXXX

POST-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXX	XXXXXXXXXXXX	XXXX

SUPPORT-MSN1	SUPPORT-MSN2
XXXXXXXXXXXX	XXXXXXXXXXXX

REMARKS

3.1.2.5.4.2.3 CAP

MSN-NO	CALLSIGN	A/C	SORTIES	ORD	RECALL
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XX	XXXX	XXXXXXXXXXXX

DEP	INGRESS	TIME	EGRESS	TIME
XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

CAP-POINT	CAP-TIME/DUR
XXXXXXXXXXXX	XXXXXXXXXXXX

CTRL-AGENCY	CTRL-FREQ
XXXXXXXXXXXX	XXXXX

RECOVERY
XXXX

PRE-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX

POST-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX

SUPPORT-MSN1	SUPPORT-MSN2	SUPPORT-MSN3	SUPPORT-MSN4	SUPPORT-MSN5
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

REMARKS

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3.1.2.5.4.2.4 EW

MSN-NO	CALLSIGN	A/C	SORTIES	RECALL
XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXX	XX	XXXXXXXXXXXX
ORBIT-POINT	DURATION	TYPE-EW		
XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXX		
TGT-LOCATION				
XXXXXXXXXXXX				
DEP	REND-POINT	REND-TIME	INGRESS	TIME
XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
CTRL-AGENCY	CTRL-FREQ			
XXXXXXXXXXXX	XXXXX			
RECOVERY				
XXXX				
PRE-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX
POST-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX
SUPPORT-MSN1	SUPPORT-MSN2	SUPPORT-MSN3	SUPPORT-MSN4	SUPPORT-MSN5
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

REMARKS

3.1.2.5.4.2.5 PRECCE

MSN-NO	CALLSIGN	A/C	SORTIES	RECALL
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXX	XX	XXXXXXXXXX

REQ-NO	TGT	TOT	PRI	TGT-CATEGORY	AREA
XXXXXX	XXXX	XXXXXXXXXX	X	XXXXXXXXXXXX	XXXXXXXXXXXX

TGT-LOC-A	LOC-B	LOC-C	LOC-D	LOC-E	LOC-F
XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX

SPEC-EEI	TYPE-RECCE
XXXXXXXXXXXX	XXXXXXXXXXXX

TYPE-PHOTO	TYPE-FILM
XXXXXXXXXXXX	XXXXXXXXXXXX

MAP/CHART	SCALE
XXXXXXXXXXXX	XXXXXXXXXXXX

PRODUCT	NO-COPIES	DELIV-TIME
XXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXX

INSTRUCTIONS
XXXXXXXXXXXX

DEP	REND-POINT	REND-TIME	INGRESS	TIME	EGRESS	TIME
XXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX

CTRL-AGENCY	CTRL-FREQ
XXXXXXXXXXXX	XXXXX

RECOVERY
XXXX

PRE-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX

POST-FUEL	TIME	LBS	CALLSIGN	FREQ
XXXXXX	XXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXXX

SUPPORT-MSN1	SUPPORT MSN2
XXXXXXXXXXXX	XXXXXXXXXXXX

REMARKS

TGT-1
repeat
for up to
4 targets

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3.1.2.5.4.2.6 IRECCE

UNIT	FIRST-MSN-NO	LAST-MSN-NO	FIRST-CALLSIGN	LAST-CALLSIGN
XXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX
A/C	SORTIES	DURATION	DEP-BASE	
XXXXXX	XX	XXXXXXXXXXXXXX	XXXX	
CTRL-AGENCY		CTRL-FREQ		
XXXXXXXXXXXXXX		XXXXX		

3.1.2.5.4.2.7 ICAS

UNIT	FIRST-MSN-NO	LAST-MSN-NO	FIRST-CALLSIGN	LAST-CALLSIGN
XXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX
A/C	SORTIES	DURATION	DEP-BASE	
XXXXXX	XX	XXXXXXXXXXXXXX	XXXX	
CTRL-AGENCY		CTRL-FREQ		
XXXXXXXXXXXXXX		XXXXX		

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3.1.2.5.4.2.8 SAR
MSN-NO CALLSIGN
XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX
DEST-LOC MSN-NO SAR-REQ CALLSIGN
XXXXXXXXXXXX XXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXX

REMARKS

3.1.2.5.4.2.9 DELETE

MSN-NO
XXXXXXXXXXXX

REMARKS

DELETE. (remarks from file)

3.1.2.6 Condition/Event Monitoring Function

Condition/Event Monitoring is responsible for detecting certain operational situations which require prompt operator notification and for effecting such notification. Specifically, it checks for scheduled events which are not reported within an allowable time interval after the scheduled time.

There are two types of scheduled events which are monitored by this function:

- a. Those pertaining to the progress of operational missions; and
- b. Those pertaining to status reports which are due at specific times during the day.

The operation of this function is regulated by System Control in accordance with the System Status Table.

The processing of mission schedules is performed on a cyclic basis with the frequency regulated in System Control. Cycle time is nominally five minutes and is variable over the range of 1-99 minutes. Status report monitoring is performed at fixed clock times which correspond to scheduled report receipt times modified by a fixed time allowance.

When a scheduled event check fails, Display Control and Generation is requested to output an alert notification to a specific functional address.

3.1.2.6.1 Source and Type of Inputs

3.1.2.6.1.1 File Requirements

3.1.2.6.1.1.1 FRAG Order/Mission Schedule Files

These files contain data pertaining to planned and actual mission execution. There are three basic categories of files in this group:

- a. Those which contain both FRAG Order and Mission Schedule data;
- b. Those which contain only FRAG Order data;
- c. Those which contain only Mission Schedule data.

Of these three categories, the first and third are required by this function. The second is not required since monitoring is not performed against FRAG data.

The files required are:

- Preplanned Fighter Frag Order/Mission Schedule
- Preplanned Reconnaissance FRAG Order/Mission Schedule
- Electronic Warfare FRAG Order/Mission Schedule
- Search and Rescue FRAG Order/Mission Schedule
- Immediate Close Air Support Mission Schedule
- Immediate Reconnaissance Mission Schedule
- Air Refueling Mission Schedule

3.1.2.6.1.1.2 Airfield and Flight Facility Status File

This file contains status data for each base and its associated flight facilities. The "As-of" time for the most recent report is contained for each base.

3.1.2.6.1.1.3 Air Defense Fighter Status File

This file contains the Air Defense Fighter alert status and "As-of" time for each appropriate unit.

3.1.2.6.1.1.4 Tactical Unit Status File

This file contains the assignment and current and forecast operational ready status for both aircraft and aircrews for each unit. The "As-of" time for the most recent report is contained for each unit.

3.1.2.6.1.1.5 Delta T File

This file regulates the checking of scheduled mission events. It is organized by mission type and contains for each type the time allowance permitted for the reporting of an event. When the time allowance is null, this is interpreted as meaning that the event is not to be checked for the applicable mission type. The mission types included in the file are:

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- a. Preplanned Fighter
- b. Preplanned RECCE
- c. Immediate CAS
- d. Immediate RECCE
- e. Electronic Warfare
- f. Search and Rescue
- g. Air Refueling

Time allowances for the following events are provided:

- a. Departure
- b. Fighter on target
- c. RECCE on target
- d. Return
- e. Tanker on station
- f. Search and Rescue intercept/pickup

The following diagram shows the initial values assigned to the time allowances for each mission type. A blank indicates null.

	Departure	Fighter TOT	RECCE TOT	Return	On Station	SAR
Pfighter	5	20		5		
PRECCE	5			5		
ICAS		20		5		
IRECCE				5		
EW	5			5		
SAR						5
Refueling					10	

3.1.2.6.2 Destination and Type of Outputs

The only output from this function is contained in the Monitoring Alerts File (see Figure 7). This file is used as the communication vehicle between this function and Display Control and Generation. When an alert condition is detected, an entry is made in the file identifying:

- a. The type of alert.
- b. The object identification
- c. The scheduled time
- d. The functional address.

It should be noted that the above references to the Monitoring Alerts File are to be considered descriptive of the functional requirements, but are not restrictive of the implementation techniques to be chosen during program design.

3.1.2.6.3 Information Processing

Although there are two modes of processing discussed - cyclic and fixed time of day - these need not be separately initiated, since the arrival of each of the fixed time points can be tested during a cyclic operation.

3.1.2.6.3.1 Cyclic

Condition/Event Monitoring is called at a fixed interval by System Control to check for discrepancies between mission schedules and reported mission progress. Whenever a scheduled mission event has not been reported within the time allowance given in the Delta T File, an entry is made in the Monitoring Alerts File. The mission types on which checks are performed are:

- a. Preplanned Fighter
- b. Preplanned RECCE
- c. EW
- d. Search and Rescue
- e. Immediate CAS
- f. Immediate RECCE
- g. Air Refueling

Because of the similarity in the processing involved in each of the mission event checks, some basic principles are given here to avoid excessive repetition in the discussions of individual mission types.

1. The specific events are checked against the present (simulated) time. If the present time is later than the scheduled time by an amount greater than the allowance given for the event in the Delta T File, an entry is made in the Monitoring Alerts File. The next event to be monitored, if any, in the schedule for the mission is then checked.
2. When a scheduled event is found to have been reported, the next event to be monitored, if any, in the schedule is checked.
3. When all scheduled events to be monitored for a mission have been checked, the next mission is processed.
4. When all missions have been processed, the function exits to system control.
5. The logic to determine the functional address for an alert is based on mission type. These functional addresses correspond to the positions to which the functions and subfunctions responsible for the various mission types are assigned. One physical position may be represented by more than one functional address, and, conversely, the same functional address may apply to more than one physical position (reference paragraph 3.1). The mission type/functional address relationship is as follows:
 - a. Interdiction, Counter Air, Escort, and CAP
go to INT/CA;
 - b. ICAS goes to ICAS;
 - c. PCAS goes to PCAS;

- d. Air Defense goes to AIRDEF;
 - e. IRECCE goes to IREC;
 - f. PRECCE goes to PREC;
 - g. EW goes to EW;
 - h. SAR goes to SAR;
 - i. Tanker goes to Tanker.
6. The scheduled time which is inserted into variable 1 in the Monitoring Alerts File is the estimated time of the event which has failed the monitor check.
7. The object identification which is inserted into the Monitoring Alerts File is the mission number of the mission being processed.

The following sections give the specific events which are monitored for each mission (if the values in the Delta T file are not null) and the type of alert which results from the failure to pass each event check. The alert type is entered into the Monitoring Alerts File along with the scheduled time, object identification, and functional address as described above. Missions with a status of Complete or Deleted are not monitored; missions with a status of Active are monitored (where appropriate) for inflight, landing, intercept/pickup reports; other scheduled missions are monitored for takeoff reports.

3.1.2.6.3.1.1 Preplanned Fighter

- a. Estimated Time of Departure. Alert type is Takeoff Report not Received. (Alert number 22)
- b. Estimated Time over Target. Alert type is Inflight Report not Received. (Alert number 23)
- c. Estimated Time of Return. Alert type is Landing Report not Received. (Alert number 24)

3.1.2.6.3.1.2 Preplanned RECCE

- a. Estimated Time of Departure. Alert type is Takeoff Report not Received. (Alert number 22)

- b. Estimated Time over Target. Alert type is RECCE Inflight Report not Received. Note that there may be up to four targets each with its own TOT. Each is checked. (Alert number 36)
- c. Estimated Time of Return. Alert type is Landing Report not received. (Alert number 24)

3.1.2.6.3.1.3 Electronic Warfare

- a. Estimated Time of Departure. Alert type is Takeoff Report not Received. (Alert number 22)
- b. Estimated Time of Return. Alert type is Landing Report not Received. (Alert number 24)

3.1.2.6.3.1.4 Search and Rescue

- a. Estimated Intercept/Pickup Time. Alert type is Overdue Search and Rescue Report. (Alert number 26)

3.1.2.6.3.1.5 Immediate CAS

- a. Estimated Time over Target. Alert type is Inflight Report not Received. (Alert number 23)
- b. Estimated Time of Return. Alert type is Landing Report not Received. (Alert number 24)

3.1.2.6.3.1.6 Immediate RECCE

- a. Estimated Time over Target. Alert type is RECCE Inflight Report not Received. Note that in contrast to a Preplanned RECCE mission, an Immediate RECCE has only one target. (Alert number 36)
- b. Estimated Time of Return. Alert type is Landing Report not Received. (Alert number 24)

3.1.2.6.3.1.7 Air Refueling

- a. Estimated Time on Station. Alert type is On-Station Report not Received. (Alert number 27)

3.1.2.6.3.2 Fixed Time of Day

Condition/Event Monitoring operates at three fixed times (simulated) during the day to verify the receipt of status messages which are scheduled at specific times. Nominal report times are 0001Z, 0800Z and 1600Z. To allow some leeway in the reporting mechanics, this function checks for receipt 20 minutes after the nominal times, i.e., 0020Z, 0820Z, and 1620Z. If the "As-of-Time" in the file does not correspond to the nominal reporting time, an entry is made in the Monitoring Alerts File. The status files which are checked are:

- a. Airfield and Flight Facility
- b. Air Defense Fighter
- c. Tactical Unit

The following sections discuss these status files in terms of the times at which they are checked and the entries which are made in the Monitoring Alerts File if a time check fails.

3.1.2.6.3.2.1 Airfield and Flight Facility Status

This file is checked at 0820Z. If the check fails, the entries in the Monitoring Alerts File are:

- a. Alert type - No Airfield and Flight Facility Status Report Received. (Alert number 16)
- b. Object Identification - Base Identifier
- c. Scheduled Time - 0800Z
- d. Functional Address - AIRDEF

3.1.2.6.3.2.2 Air Defense Fighter Status

This file is checked at 0020Z and 0820Z. If a check fails, the entries in the Monitoring Alerts File are:

- a. Alert Type - No Air Defense Fighter Status Report Received. (Alert number 28)
- b. Object Identification - Unit Identifier

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- c. Scheduled Time - 0001Z or 0800Z
- d. Functional Address - AIRDEF

3.1.2.6.3.2.3 Tactical Unit Status

This file is checked at 0020Z, 0820Z, and 1620Z. If a check fails, the entries in the Monitoring Alerts File are:

- a. Alert Type - No TAC Unit Status Report Received. (Alert number 15)
- b. Object Identification - Unit Identifier
- c. Scheduled Time - 0001Z, 0800Z, or 1600Z
- d. Functional Address - depends on unit type:

Fighter - AIRDEF

RECCE - IREC

SAR - SAR

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3.1.2.7 Display Control and Generation Function

The following display capabilities are provided by this function:

1. Data Entry Displays
2. Mission Schedule and Mission Displays
3. Mission Adjustment Summary and Information Displays
4. Monitoring Alert Displays
5. Control and User Option Information Displays
6. Data Base Displays

Data Entry Displays, DEDs, provide a capability for an operator to manually input messages for processing, to retrieve status and other selected message data in the format of a data entry display and to input candidate selection control and assignment processing information to the Mission Adjustment Function.

Mission Schedule Displays provide the operator with the capability to select by mission type and time period a set of missions for display. The display of this mission schedule data for a given mission set provides information necessary for the mission monitoring activity of the TACC. In addition, a Mission Display capability is also provided to display selected frag order and/or mission schedule information contained in the data base for a specific mission. This permits an operator to review all critical data associated with a single mission in support of the Mission Adjustment and monitoring functions. A Mission Display is automatically presented to the operator at the conclusion of a Mission Adjustment process which results in the adjustment in planning of a mission.

Mission Adjustment Summary and Information Displays provide candidate summary and other assignment information to an operator to support the decision-making processes of Mission Adjustment. These displays also keep the operator informed of results of mission adjustment processing.

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Monitoring Alert Displays are generated as a result of Condition/Event Monitoring and Input Message monitoring. These displays consist of a series of printouts that identify the specific condition or event that has been identified by the program as requiring prompt operator notification.

Control and User Option Displays contain information related to system operational configuration, status, and capability. An operator uses the Control display to control the system operation and to make changes to the functional assignments of user stations. He uses the Option Displays as an aid in initiating the functional capabilities provided by the system.

In addition to the displays provided by this function, there are a number of alerts which are presented to an operator in response to an erroneous operator action taken to request a Data Entry Display, a Mission Schedule or Mission Display, a Data Base Display, or a Control or User Option Display. These alerts are described in the Operator Actions section of this document.

The Data Base Display capability is basically provided by the TDSDT System. However, to facilitate the use of this display capability by TACC personnel, TDSDT display request statements for frequently used and operationally significant data have been established and stored in the system. These stored statements have a specific display request message associated with them that is presented to the operator with an operationally descriptive title. Each title appearing on this display is selected by an operator and when selected causes the prepared TDSDT display statement to be executed. The operationally oriented titles are intended to be readily recognizable and usable by TACC personnel.

3.1.2.7.1 General

3.1.2.7.1.1 Specification

The display specifications contained in this section are subject to the following format and content restrictions. These are based on the nature

of the Sanders 720 display equipment and actual user station configuration of the TDSDT.

The content of any single display page is limited to 1021 characters, including both control and displayable characters. These characters can be positioned in any column from 1 to 63 and in any of the 32 lines. The first two lines of the display screen are not used for actual display purposes but are reserved as two separate display blocks. The first of these is used by the operator for display request messages. In all functional displays except DEDs, this line contains the message which may be used by the operator to request the display present on the screen; in the case of DEDs, this line is left blank for use by the operator when entering a new request. Block 2 is reserved for program-generated display responses for error reporting and processing reports, e.g., identification of fields in error or Adjustment Alerts.

Display information is usually presented on lines 4 thru 31 of the display screen as required. With the exception of Data Entry Displays, this is usually a single data display block. At the bottom of each display, "Other Requests" for the display of information can be identified. Each request in this area is a separate display block, can be identified by the + sign preceding the request, and when selected by an operator causes the specific display to be generated. These requests are linearly oriented and arranged from general to specific running from left to right.

When a specified display requires more than a single display page for the presentation of all display information, the request statement necessary to request other than the particular page being displayed will appear in Block 1 of the display. Each display consisting of more than one display page or one display set have the displayed page and set identified in the display as well

FIGURE 15

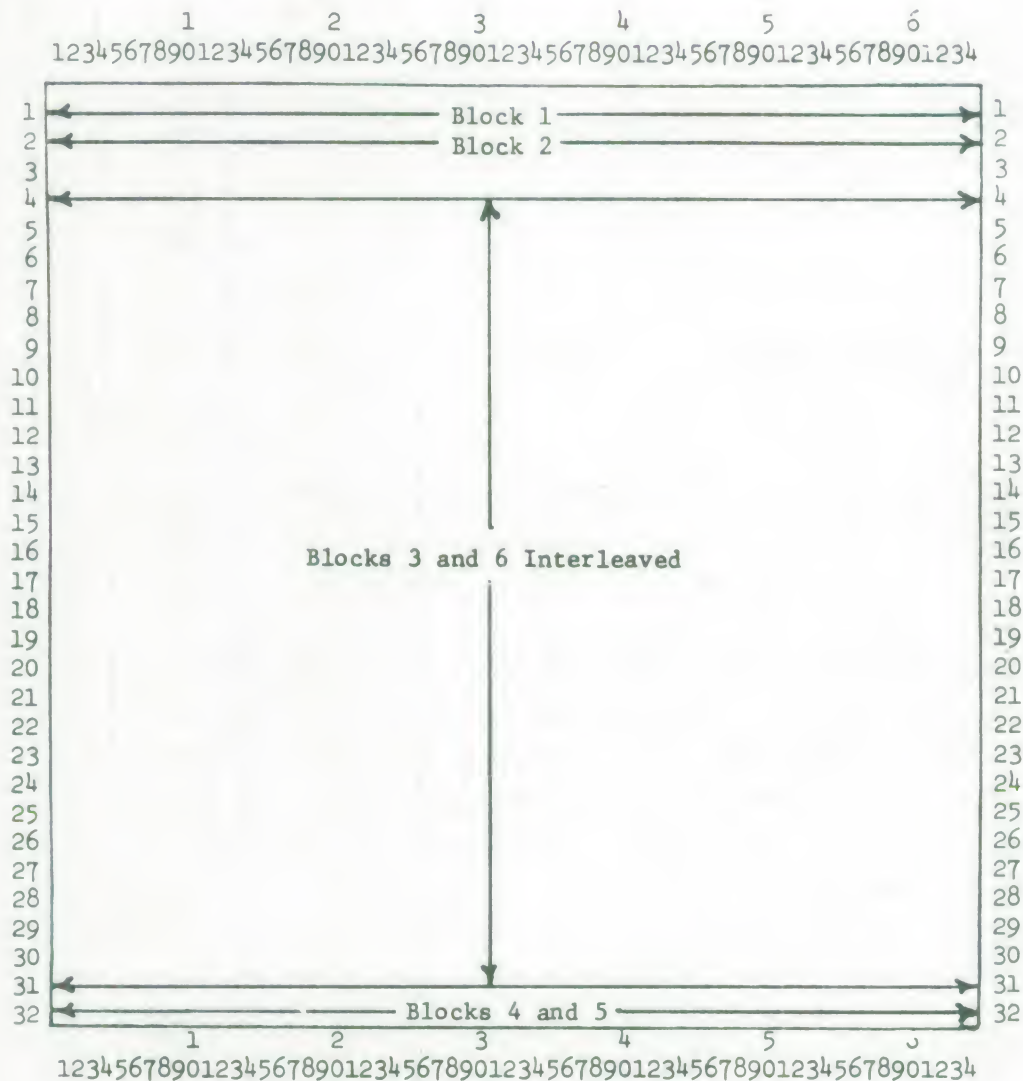
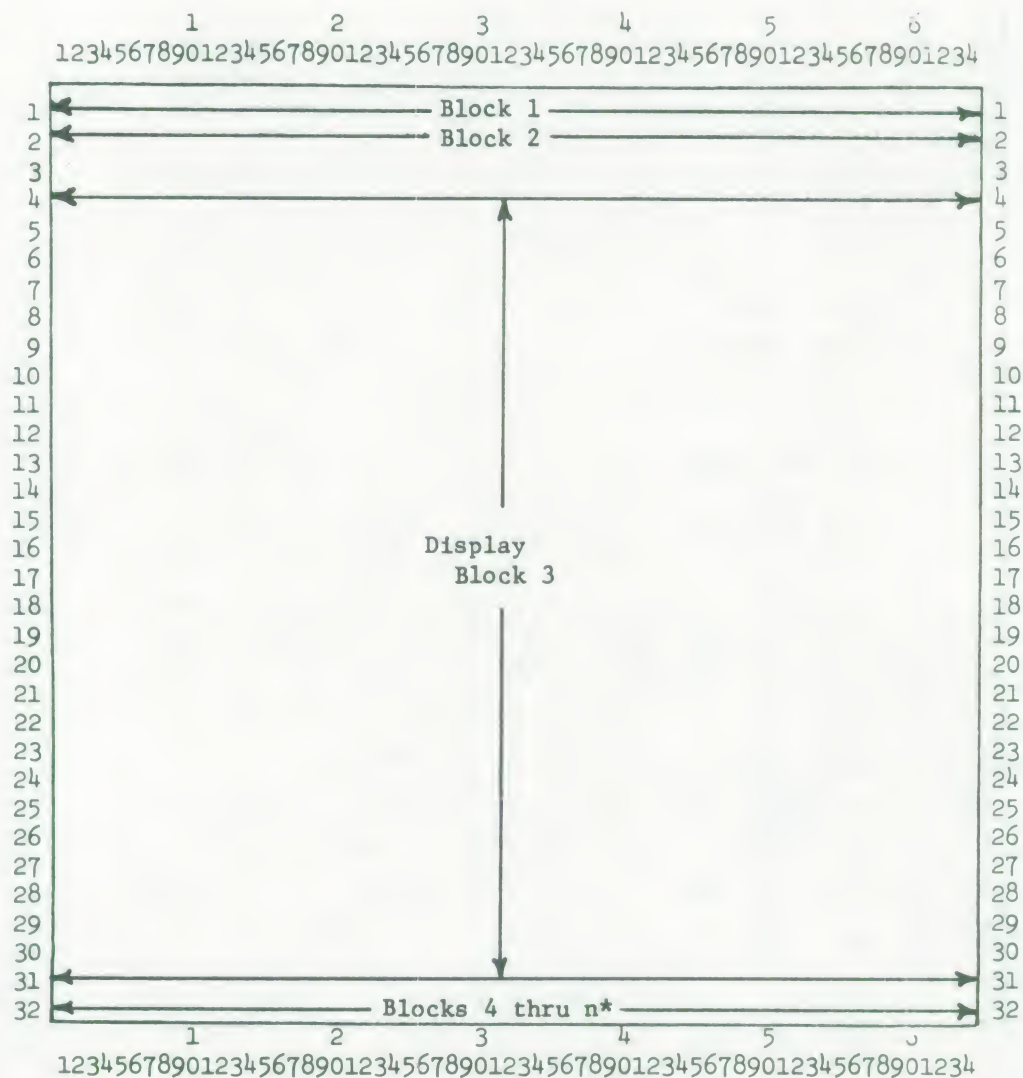
DISPLAY BLOCK STRUCTURE FOR DEDs

FIGURE 16

DISPLAY BLOCK STRUCTURE FOR NON-DEDS

* As required for user options

as the total number of pages and sets available for that display. The request statement necessary to request any display page or display set for a given display appears in Block 1 of the display. The currently displayed page and set numbers and total numbers available appear on line 5 as part of block 3. DEDs are not broken into pages and sets but rather into parts. The number of the currently displayed part and the total available parts appear on line 4.

3.1.2.7.1.2 User/System Interface

The TDSDT System is composed of computers (PDP-8s and IBM-1800) and user station devices (displays, keyboard sets) that provide the storage, processing and distribution of data in support of the system user.

Display Control and Generation provides a two-way communications channel between the system user and the system files and functional software. As such it constitutes the major portion of the user/system interface. The total user/system interface is discussed in greater detail in Section 5.0 - Operator Actions and System Responses. This paragraph discusses, in general terms, the allocation of storage and processing responsibilities directly associated with Display Control and Generation. The Operator Actions and System Responses section contains a user-oriented discussion of the overall system structure, basic operator procedures and detailed

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catalogs of user information. These catalogs cover:

Operator Actions and Results

System Outputs and Causes

Errors and Alerts

Both the PDP-8 and IBM-1800 computers provide support to Display Control and Generation. The PDP-8 provides a limited processing and storage capability in direct support of the system user. Additionally, it provides preprocessing of some display requests (e.g. DBDs) that will be processed by the 1800 and postprocessing prior to display of 1800 outputs (e.g., alerts or data insertion errors). The 1800 provides the major storage and processing capability. The schematic that follows depicts in more detail the responsibilities of the two computers in support of Display Control and Generation.

FIGURE 18
DATA ENTRY DISPLAYS

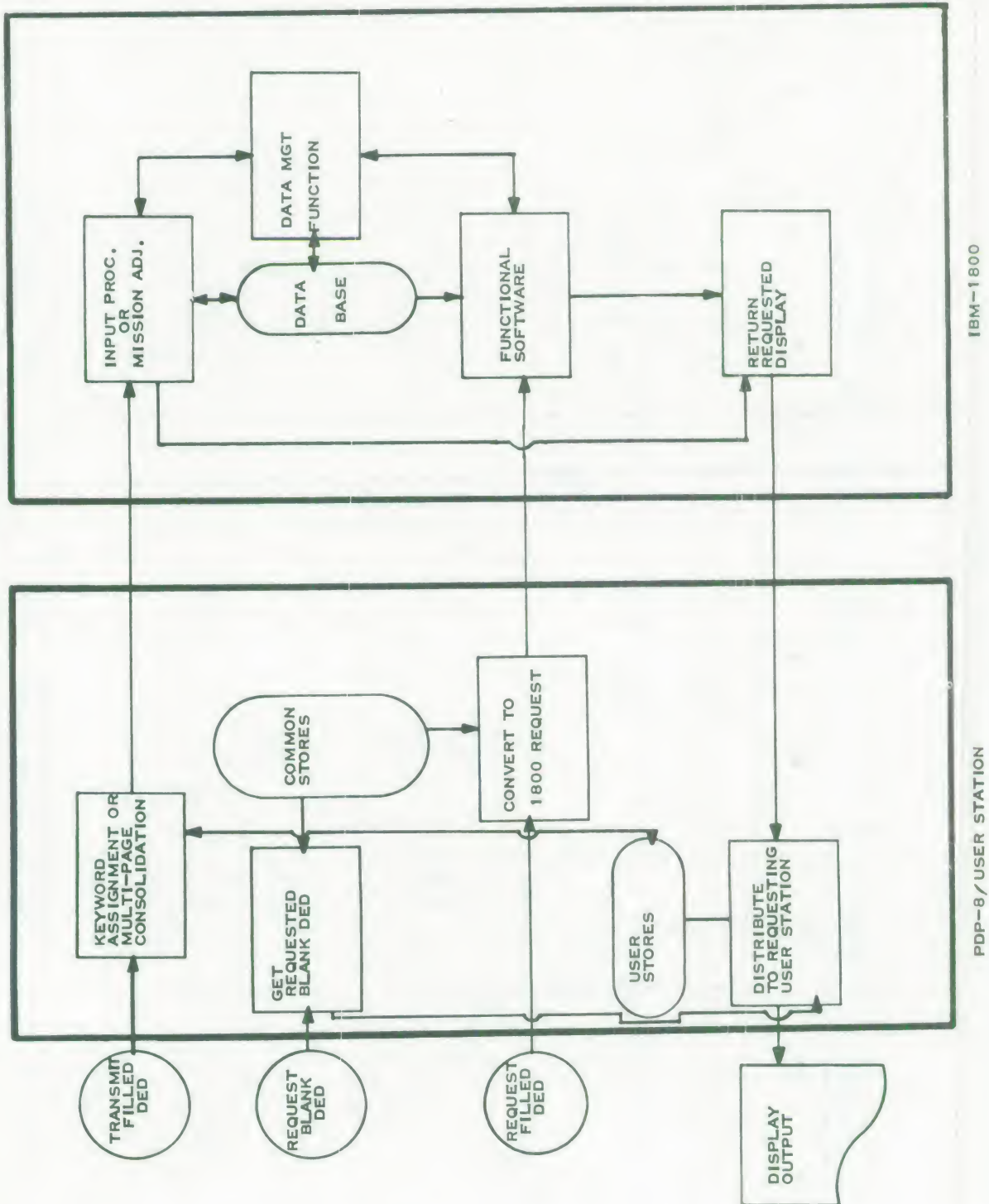


FIGURE 19
MISSION SCHEDULE AND MISSION DISPLAYS

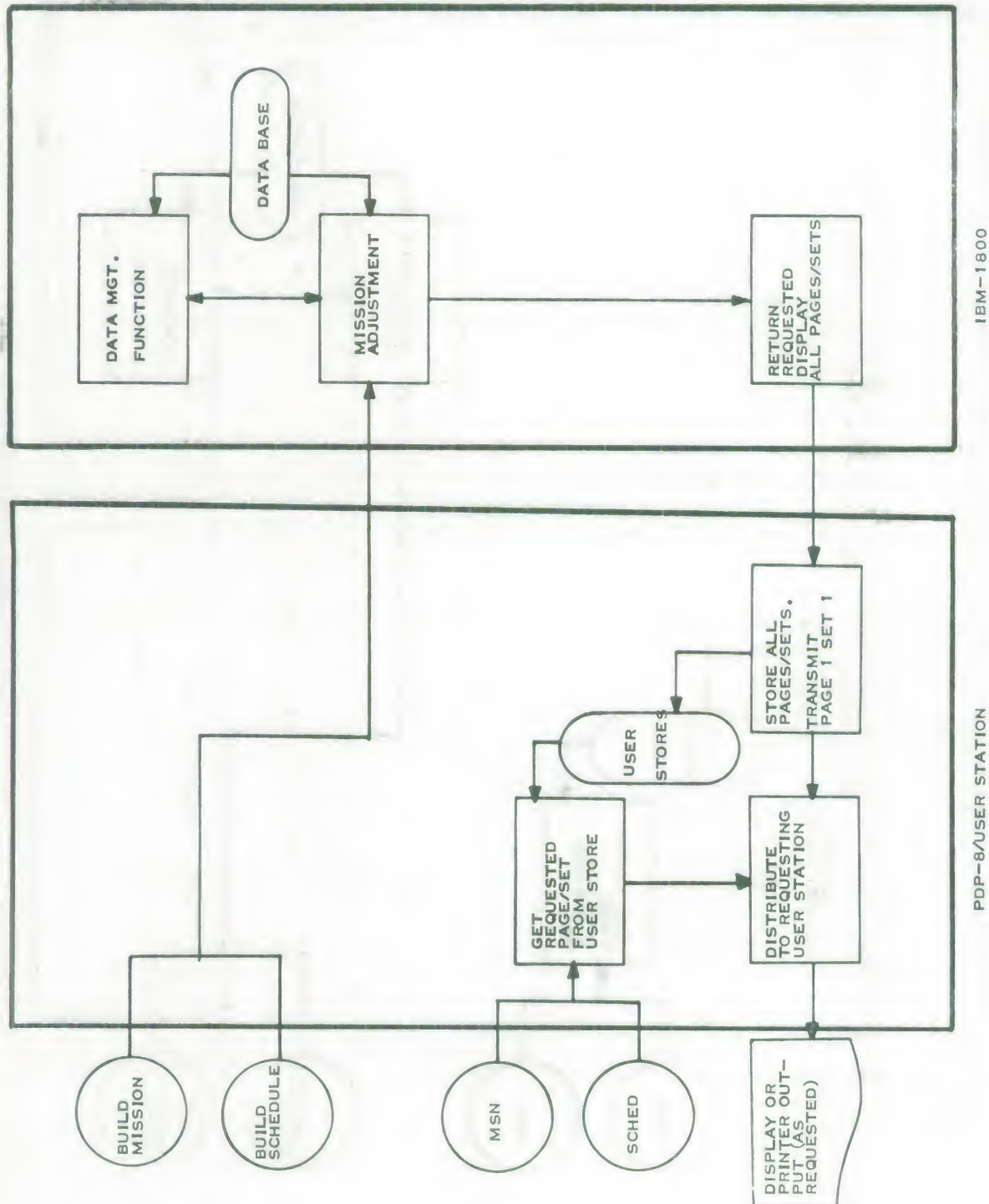


FIGURE 20
MISSION ADJUSTMENT SUMMARY AND INFORMATION DISPLAYS

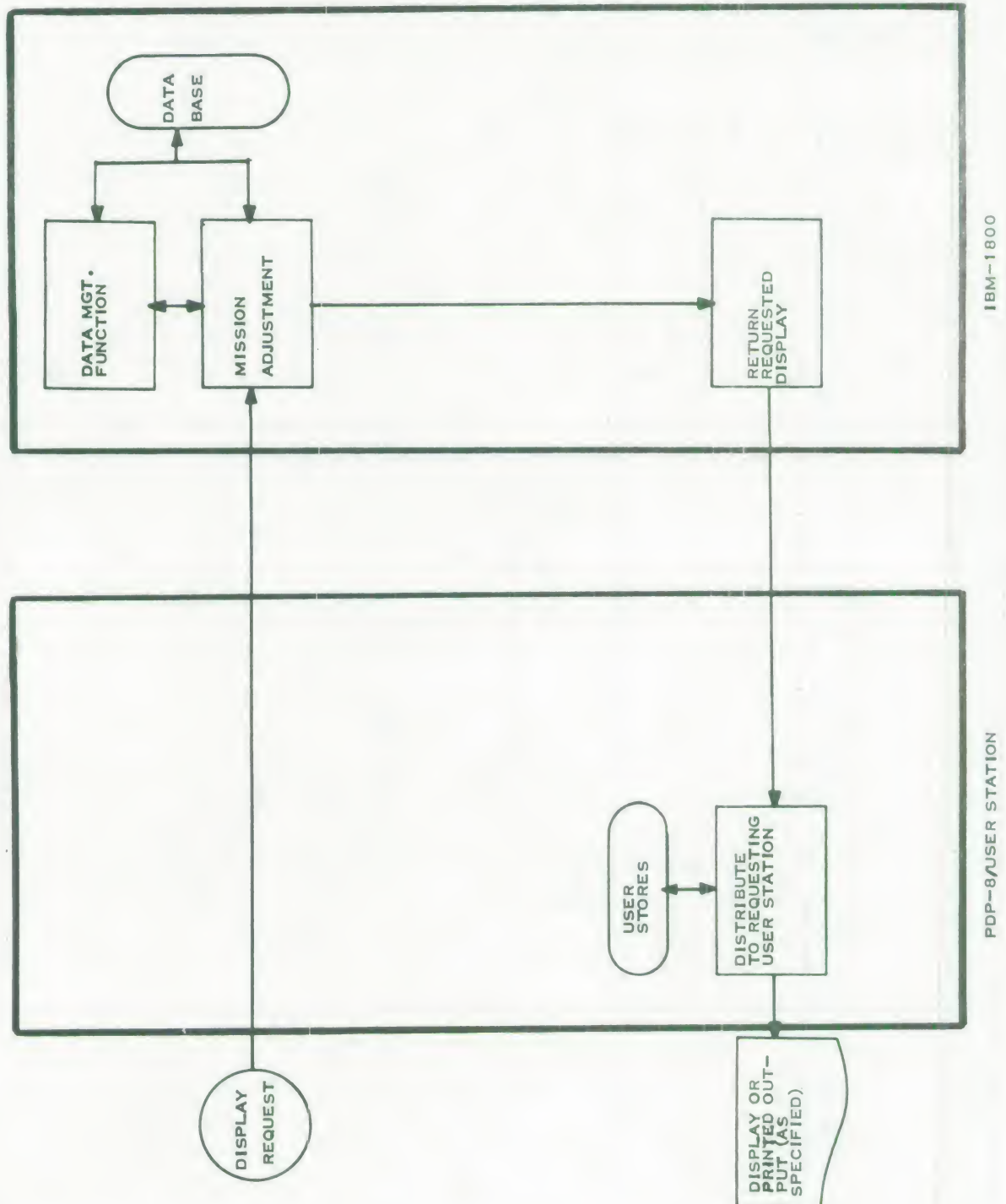
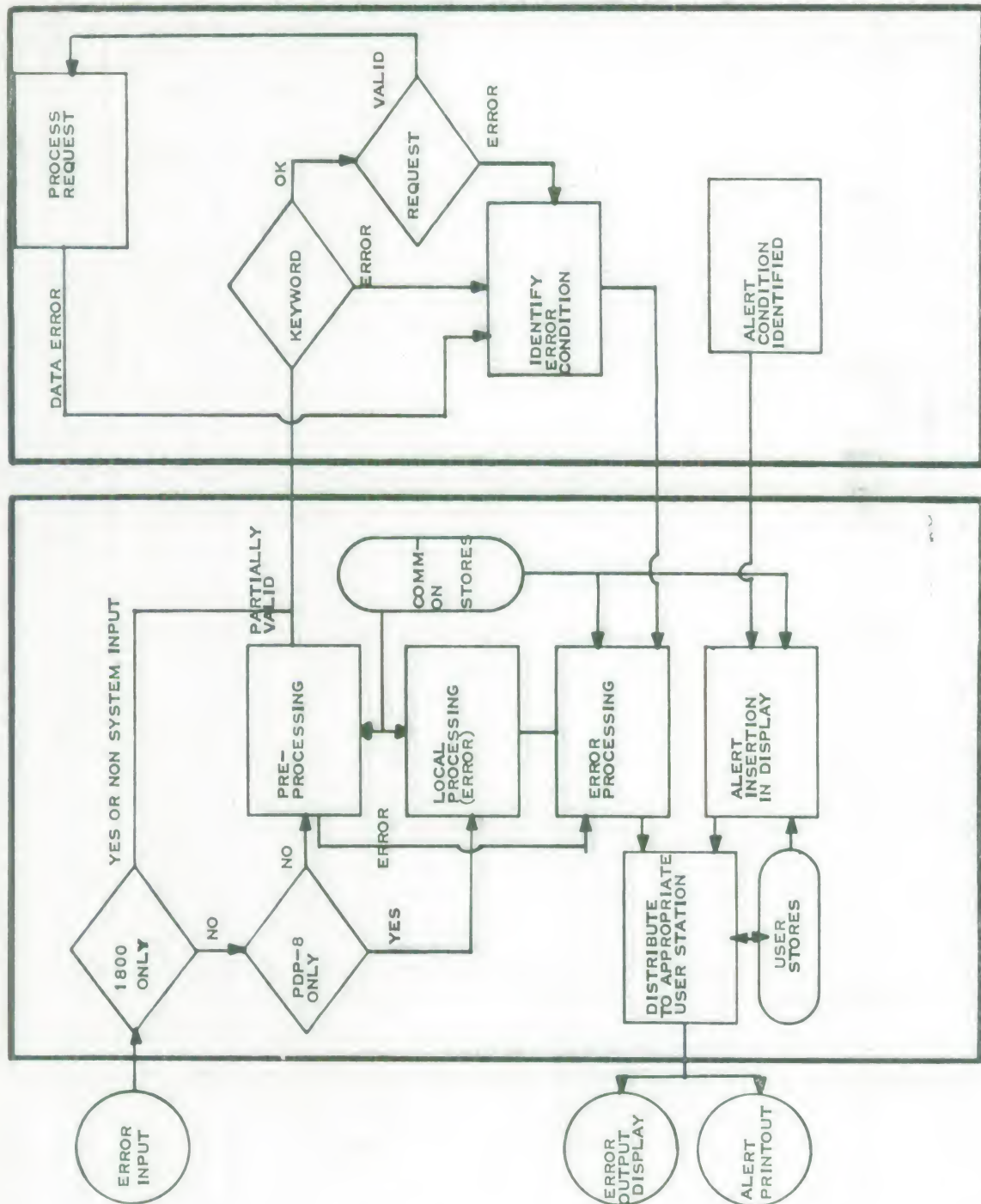


FIGURE 21
MONITORING ALERTS AND ERROR CONDITIONS DISPLAY



IBM-1800

PDP-8/USER STATION

FIGURE 22
CONTROL AND USER OPTION INFORMATION DISPLAYS

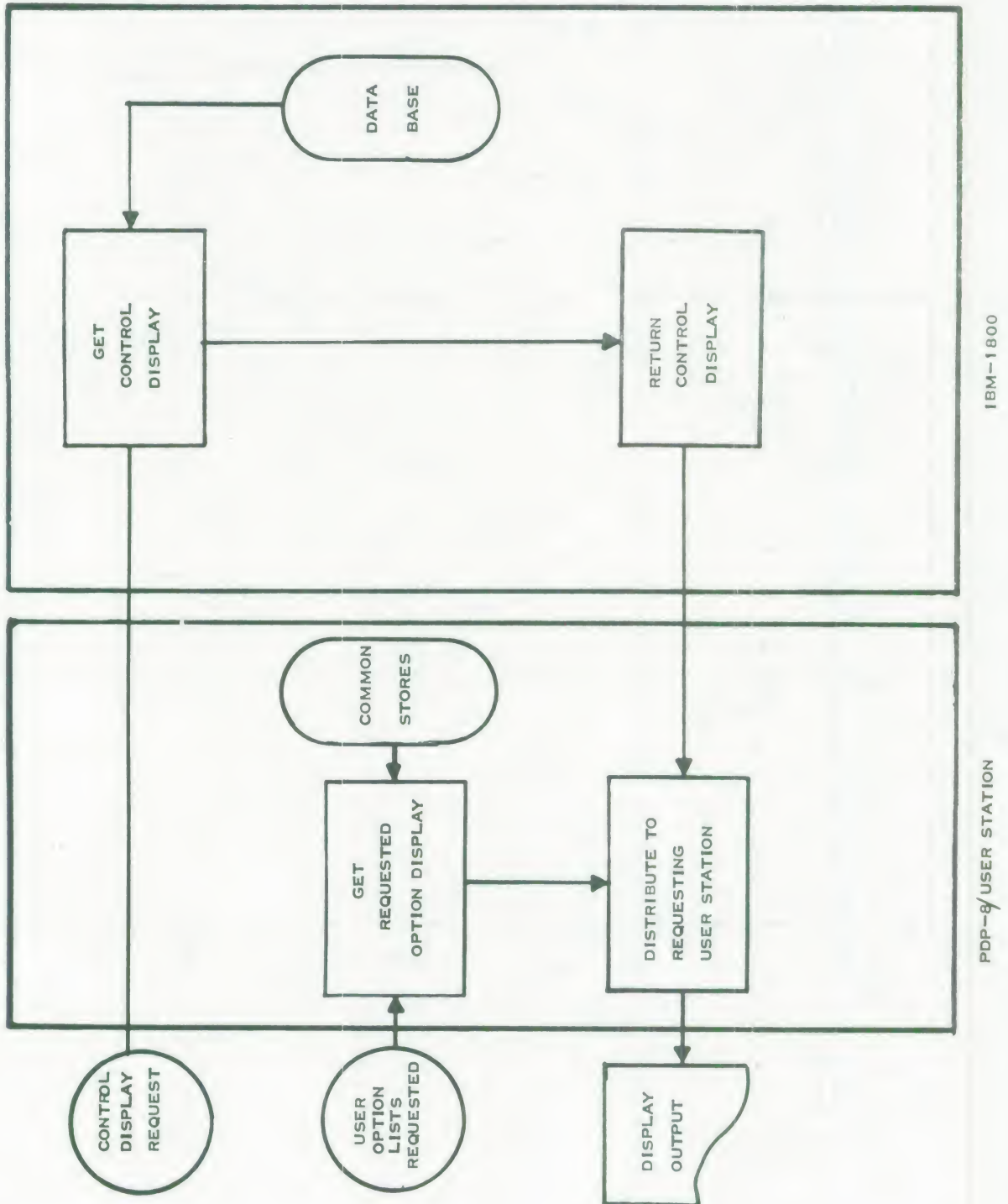
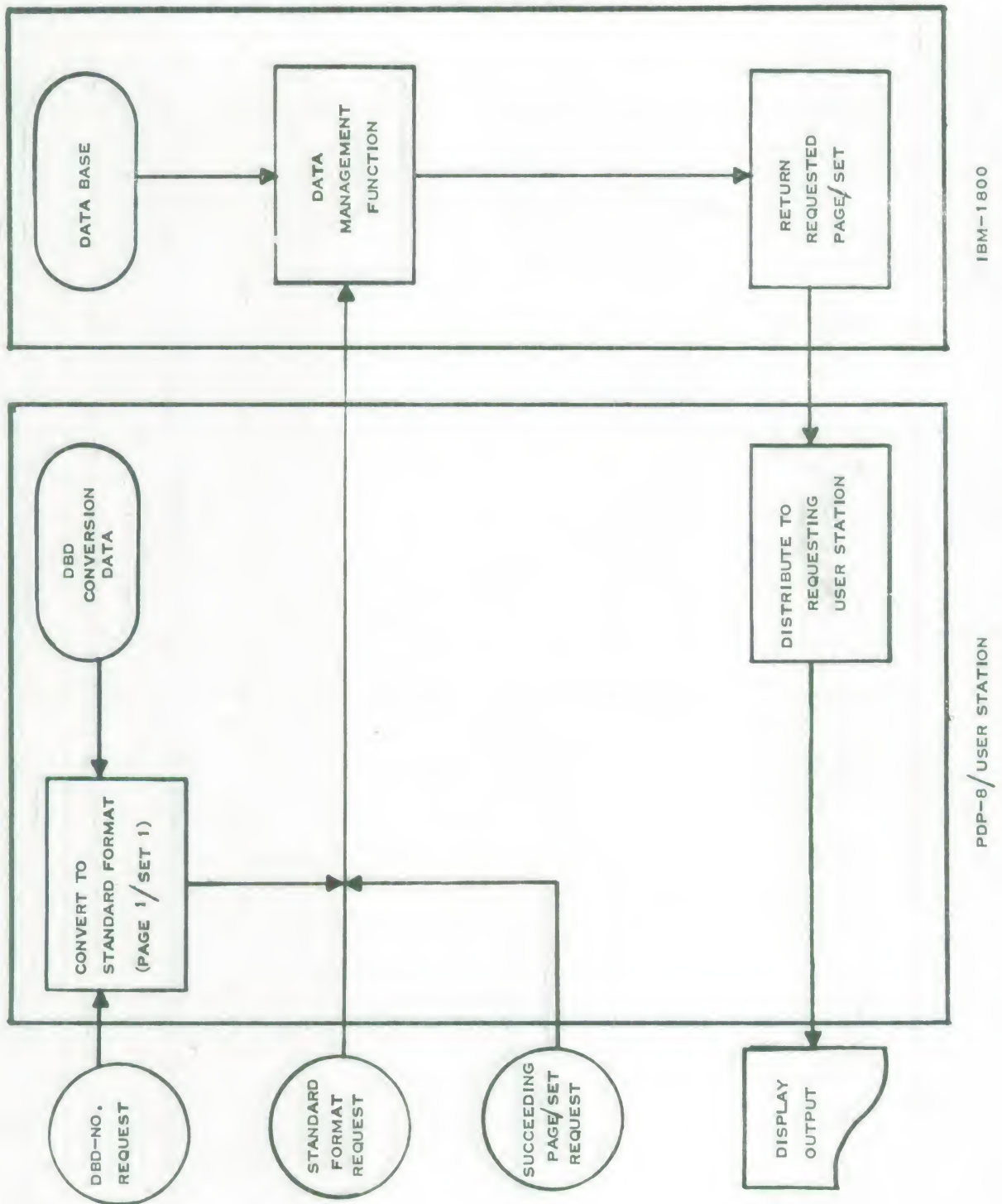


FIGURE 23
DATA BASE DISPLAYS



3.1.2.7.2 Data Entry Displays

This type of display provides an interactive capability to the system operator by presenting specially constructed and formatted displays in which data is entered for processing. These DEDs support the Input Message Processing Function by providing an operator with the capability to manually enter input messages received from elements of the TACS. They also support the Mission Adjustment Function by providing the operator with the capability to enter selection criteria for the direction and control of the Mission Adjustment processes.

In addition to the data entry capability provided by these displays, a subset of them enable the operator to retrieve, modify, update and re-enter message data contained in the data base. These displays are:

- a. Air Defense Fighter Status Report
- b. Airfield and Flight Facility Status Report
- c. Joint Tactical Air Request
- d. Joint Tactical Air RECCE/Surveillance Request
- e. TACS Facility Status Report
- f. Tactical Unit Status Report

A filled-in DED is obtained by specifying the appropriate object identifier in the DED request. For example, DED TAUS (unit) causes the status data for the specified unit to be displayed in the DED format for the Tactical Unit Status Report. The information presented in these displays when requested by an operator can be modified and used to update the information contained in the data base.

3.1.2.7.2.1 Data Entry Display Format

The design of the individual DED formats takes advantage of the blocking capability of the display equipment in allocating areas of the screen to discrete data types; it is subject to certain design rules and constraints in the positioning of data fields within the blocks.

3.1.2.7.2.1.1 Block Utilization

Block 1. This block reserves the first line of the display screen for operator requests.

Block 2. This block reserves Line 2 of the display screen for processing responses by the system to operator requests or errors.

Block 3. For DED's, this block contains all the fixed display information appearing on the display screen related specifically to the displayed DED. This information includes the display title presented on Line 4 of the display screen and the information required to identify and amplify the variable data fields into which the operator can enter data. Data field identification data begins on Line 6 of the display surface and uses the lines following as required. This block can occupy any portion of the display screen between Line 4 and Line 31 of the display screen.

Blocks 4 and 5. These blocks appear on Line 32 of the display screen and are used to provide the operator with display request actions to facilitate the performance of his required tasks. These blocks are identified by the use of a plus sign as the first character in the display request.

Block 6. This block is made up of all the control and variable data entered by the operator. This block contains the data entry request information "ENTER LLLL" or "MULTI LLLL" where "LLLL" represents the identification of a specific DED. The words MULTI and ENTER are the identifiers used for DED processing. "ENTER" is used for displays consisting of a single page, while "MULTI" is used when more than one page is required to present the total display. Each of the variable data fields contained in the display

in which an operator can enter data are identified in the display by dash characters. These variable data fields are also contained in this block. Those fields in which an operator must enter data are indicated by square brackets []. It should be indicated that the square brackets themselves are part of the fixed data in Block 3. The entry of data in all other fields in a message is optional and will not modify existing data unless utilized. Certain data fields may contain imbedded blanks, e.g., Character Character Blank Character. These fields are bracketed by < > symbols. Imbedded blanks in all other data fields will result in an error. A number of the displays provide for operator insertion of data for subsequent input to system files or software packages. Dashes (-) have been used in the presented display to indicate such data entry fields and may be typed over or left as appropriate to the input being made. All trailing dashes will be eliminated. For user convenience date-time may be entered as either eight characters (date and time) or four characters (time). If time only is entered the day will be added by input processing. In either event current year will be added prior to storage as a ten character date-time group.

3.1.2.7.2.1.2 Field Positioning

The design rules and constraints observed in determining the position of each field within each blank are as follows:

- Block 1. This block is not used for display data - it is reserved for operator requests.
- Block 2. This block is not used in the data display format. It is reserved for processing responses by the system to operator requests or system notification of error conditions.

- Block 3. As noted in 3.1.2.7.2.1.1 above, this block contains the display title and the identifying titles for each of the variable data fields. Since the field titles are interleaved with the variable data which they identify, the starting location of each title cannot be specified without consideration of the length of the individual variable data fields; the converse of this is also true, i.e. that the positioning of block 6 variable data cannot be defined without knowing the length of the field titles. This is discussed in more detail in the description of block 6 data. There is one exception to this general situation of not being able to identify the location of block 3 fields: the general display title begins in column 13 of line 4. It will be noted that variable data fields which are mandatory are identified by square brackets. Although these brackets occupy display locations adjacent to variable data locations, they are part of the block 3 data.
- Block 4 and 5. Block 4 is always "+OPTIONS" and begins in column 1 of line 32. Block 5 is a display request preceded by a plus sign. This block begins in column 13 of line 32.
- Block 6. The control data in this block begins in column 1 of line 4. The remainder of the block consists of variable data which is distributed over the display surface from line 6 to line 31 inclusive. This distribution, or identification of field locations, is constrained by the interleaving of blocks 3 and 6 and a horizontal positioning rule resulting from a feature incorporated to facilitate operator entry of data. This feature is the automatic positioning of the cursor to the first display character in the next variable data (Block 6) field after a field has been completed. (Initially it is located to the first display character in the first variable data field.) Cursor positioning is accomplished by using horizontal tab control characters to select a column and carriage return control characters to select a line. The horizontal tab moves the cursor four spaces at a time. Since variable data never starts in column 1, the first available column is determined by the number of horizontal tabs required to space past the title

(Block 3) associated with the data. A variable data field (except the last one) is always followed by at least one carriage return or vertical tab and/or at least one horizontal tab.

From the above, it can be seen that the first character in a variable display field is always located a multiple of 4 spaces after either the start of a line or the last character of the preceding variable data field. This multiple is determined by examination of the block 3 data which starts the line or comes between the variable data fields.

It was noted in the discussion of the block 3 data that square brackets are part of that block. These displays use angle brackets to designate variable data fields in which imbedded blanks are allowed. Although the square brackets and angle brackets are similarly oriented relative to the variable data, the angle brackets are part of the block 6 data.

3.1.2.7.2.2 Data Entry Display Paging

When the specified format and content of an input message are such that the capacity of the display screen is exceeded additional display pages are provided as required. Each page of the set required to input a complete message has a unique identifier for processing control. The title line of the DED for which multiple page requirements have been identified contains the Part Number and Total Number of Parts associated with the input message, (e.g., PART 1 of 2).

When an operator is satisfied with the content of Part 1 of a display and sends it to the processor, the DED for the next part of the message is automatically presented on the display surface. The content of each part of a message is held by the processor until a complete message has been input by an operator. When a complete message, that is, all parts of a multi-page DED have been received by the processor, the information contained in the message is processed by the Input Message Processing Function.

3.1.2.7.2.3 Data Entry Displays - Other Requests

Incorporated into the structure of each DED is a capability to define additional display requests to aid an operator in the performance of his duties. Two additional requests have been specified for each DED. These requests appear on the lower portion of the display screen. Each request is in a separate display block, i.e., block 4 or 5, and is further identified by a plus sign. This character is the first displayed character in the block and is included strictly as a means of readily identifying the requests available to the operator. For DED's the additional requests specified provide the operator with at least two options and in cases where a retrieval capability has been specified for the DED, three options.

The first option causes the display of the Option List. Selection of this option requests a display of all option types available to the operator (see Section 3.1.2.7.6). From the displayed list the operator may select one of the option types by positioning the cursor and sending the block containing the desired option identifier. This causes to be displayed all of the individual requests available within the selected type. From this display, the operator may enter only one of the displayed requests.

The second option provides the operator with the capability to request a clean version of the DED that is currently being displayed for the purpose of facilitating correcting data entry or formatting errors introduced by an operator.

For DED's for which a retrieval capability has been specified a variable field for data entry has been provided as a part of the request for the DED presently being viewed. If an operator enters the object identifier in this field before executing the request, the data associated with the object stored in the data base is presented in the display of the DED. This is the display of data base information in the format specified for the DED.

3.1.2.7.2.4 Data Entry Display Processing

3.1.2.7.2.4.1 Source and Type of Inputs

Display request actions for DED's provide the operator with the ability to cause a DED to be presented. These actions are defined as follows:

- a. DED LLLL - a request for a specific DED identified by the LLLL group.
- b. DED LLLL (object) - a request for a specific DED identified by the LLLL group with the data associated with the specified object retrieved from the data base and presented in the DED format.

As a result of these actions, specific displays are generated and presented to the requestor. These displays allow the operator to review, enter or modify data in the system when the appropriate display block is returned to the data processing system.

3.1.2.7.2.4.2 Processing

In response to each of the operator request actions specific processing tasks are accomplished. The response to the DED LLLL request action causes the display of the blank form of the DED to be generated. The data required to generate these DED's is stored in the system data base and contains the necessary format, blocking and display control characters required to meet the specification for the individual DED. In response to a DED LLLL (object) action, a form is generated as above and the object data is retrieved from the data base and presented using the DED form.

3.1.2.7.2.4.3 Destination and Types of Outputs

The specific output of DED processing is a string of characters input to the system for functional processing as in the case of Mission Adjustment or for data base update in the Input Message Processing Function. The specific processing required for a given DED is a function of the identifier

contained in the display block sent to the processor. For DED's supporting the Input Message Processing Function, the output is provided according to the specific processing requirements defined for each message (see Section 3.1.2.2.3.2.3). The format and content specified for each message is contained in 3.1.2.7.2.4.3.1.

For those DED's supporting Mission Adjustment, the format and content requirements are contained in 3.1.2.7.2.4.3.2 and processing requirements in 3.1.2.4.

All data entered or required to be entered in a specific DED are checked for errors and valid content by the Mission Adjustment or Input Processing Function. These checks consist of validating the type and number of characters entered in each variable field of the DED as well as insuring that all required data fields contain valid entries. The data fields in the DED's used to enter input message data will be checked based on the item description given for each field of each message as identified in Section 3.1.2.2, Input Processing Function. The data fields of the Mission Adjustment DED's will be checked based on the Data Descriptions included in Section 3.1.2.7.2.4.3.2 of this function. When an error condition is detected, an error report is generated and the first character of the data field containing the error is caused to blink. When an error is found in a multipage DED, each sequential page is presented to the operator in the same manner as when he entered the original data. The page containing the error can be identified by the blinking first character of the data field in error. The message "ERROR" appears in Block 2 of the display. The operator must correct the field in error and re-enter the complete DED before the data base can be updated with the message data.

Upon completion of processing of an input message DED, the message "INPUT COMPLETE" is generated and appears in Block 2 of the display. This message informs the operator that no errors were detected in form or content of the entered data and distribution of the data has been completed.

3.1.2.7.2.4.3.1 Data Entry Displays - Input Message Processing

MESSAGE	IDENTIFIER	NO OF PARTS	PAGE
1. Abort Report	ABTR	1	292
2. Air Defense Fighter Status Report	ADFS	1	293
3. Air Defense Scramble Report	ADSM	1	294
4. Air Delay Report	ADEL	1	295
5. Air Surveillance Data Report	ASVD	1	296
6. Aircraft in Distress Report	AIDR	1	297
7. Airfield and Flight Facility Status Report	AFFS	1	298
8. Cancellation Request	CANX	1	300
9. Downed Pilot Report	DPRT	1	301
10. Ground Delay Report	GDEL	1	302
11. Immediate Close Air Support Scramble Report	ICSM	1	303
12. Immediate RECCE Scramble Report	IRSM	1	304
13. Inflight Report	INFR	1	305
14. Joint Tactical Air RECCE/Surveillance Inflight Report	RSIR	1	306
15. Joint Tactical Air RECCE/Surveillance Request	ARSQ	2	307
16. Joint Tactical Air Request	ACAQ	2	309
17. Landing Report	LDGR	1	311
18. On-Station Report	ONSR	1	312
19. Aircraft in Distress Position Report	PRAD	1	313
20. Refueling Report	REFR	1	314
21. Search and Rescue Position Report	SMPR	1	315
22. Search and Rescue Progress Report	SMRR	1	316
23. TACS Facility Status Report	TFAS	1	317
24. Tactical Action Data Report	TAAD	1	318
25. Tactical Unit Status Report	TAUS	1	319
26. Takeoff Report	TKOR	1	320

	1	2	3	4	5	6	
	1	2	3	4	5	6	
	12345678901234567890123456789012345678901234						
1							1
2							2
3							3
4	ENTER ABTR	ABORT REPORT					4
5							5
6	MSN NO [-----]	C/S	-----				6
7							7
8	A/C ABORTED	[--]	LANDING TIME	---/---			8
9							9
10	ABORT LOCATION	----	REASON	[-----]			10
11							11
12							12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32	+OPTIONS	+DED ABTR					32
	1	2	3	4	5	6	
	12345678901234567890123456789012345678901234						


```
1234567890123456789012345678901234567890123456789012345678901234
1 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32
1 ENTER ADFS AIR DEFENSE FIGHTER STATUS REPORT
2
3
4 UNIT [-----] LOCATION [----] AS OF TIME [---/----]
5
6 A/C TYPE [-----] ALERT A/C
7
8 2 MINUTE [--]
9
10 5 MINUTE TANKED [--]
11
12 5 MINUTE CLEAN [--]
13
14 15 MINUTE [--]
15
16 30 MINUTE [--]
17
18 1 HOUR [--]
19
20 3 HOURS [--]
21
22
23
24
25
26
27
28
29
30
31
32 +OPTIONS +DED ADFS -----
1234567890123456789012345678901234567890123456789012345678901234
```

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	1	2	3	4	5	6		
	1	2	3	4	5	6		
	123456789012345678901234567890123456789012345678901234							
1							1	
2							2	
3							3	
4							ENTER ADSM AIR DEFENSE SCRAMBLE REPORT	4
5								5
6							UNIT [-----] FLIGHT SIZE [--] A/C TYPE [-----]	6
7								7
8							VECTOR [---] CLIMB AND ALTITUDE [-----]	8
9								9
10							CONTROL [-----] FREQ [----/-----]	10
11								11
12							REMARKS <----->	12
13								13
14		14						
15		15						
16		16						
17		17						
18		18						
19		19						
20		20						
21		21						
22		22						
23		23						
24		24						
25		25						
26		26						
27		27						
28		28						
29		29						
30		30						
31		31						
32	+OPTIONS +DED ADSM	32						
	1	2	3	4	5	6		
	123456789012345678901234567890123456789012345678901234							

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123456789012345678901234567890123456789012345678901234

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	1	2	3	4	5	6	
	1	2	3	4	5	6	
	123456789012345678901234567890123456789012345678901234						
1							1
2							2
3							3
4	ENTER ASVD AIR SURVEILLANCE DATA REPORT						4
5							5
6	TRACK DESIGNATOR [-----] REPORT TYPE [-]						6
7							7
8	TIME [----] POSITION [-----] COURSE --						8
9							9
10	CLASS - A/C -- ALT -- SPEED ---						10
11							11
12	REMARKS <----->						12
13							13
14							14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32	+OPTIONS +DED ASVD						32
	1	2	3	4	5	6	
	123456789012345678901234567890123456789012345678901234						

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1234567890123456789012345678901234567890123456789012345678901234

1	2	3	4	5	6	
123456789012345678901234567890123456789012345678901234						
1						1
2						2
3						3
4	MULTI AFFS AIRFIELD & FLT FACILITY STATUS REPORT PART 1 OF 2					4
5						5
6	BASE [----] TIME [---/----] STATUS [-----]					6
7						7
8	REASON <----->					8
9						9
10	OPERATIONAL LIMIT <-----> ETRO ---/---					10
11						11
12	FACILITY NAME		STATUS	REASON FOR STATUS		12
13	OPERATIONAL LIMITATION			ETRO		13
14	-----		-----	-----		14
15	<----->			---/---		15
16	-----		-----	-----		16
17	<----->			---/---		17
18	-----		-----	-----		18
19	<----->			---/---		19
20	-----		-----	-----		20
21	<----->			---/---		21
22	-----		-----	-----		22
23	<----->			---/---		23
24	-----		-----	-----		24
25	<----->			---/---		25
26	-----		-----	-----		26
27	<----->			---/---		27
28	-----		-----	-----		28
29	<----->			---/---		29
30	-----		-----	-----		30
31	<----->			---/---		31
32	-----		-----	-----		32
1	+OPTIONS +DED AFFS ----					1
2						2
3						3
4						4
5						5
6						6
123456789012345678901234567890123456789012345678901234						

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System Development Corporation
TM-LX-346/600/01

1	2	3	4	5	6	
12345678901234567890123456789012345678901234						
1	MULTI AFFS2 AIRFIELD & FLT FACILITY STATUS REPORT PART 2 OF 2					1
2						2
3						3
4						4
5						5
6						6
7						7
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1	2	3	4	5	6	
123456789012345678901234567890123456789012345678901234						
1						1
2						2
3						3
4	ENTER CANX CANCELLATION REQUEST					4
5						5
6	MSN NO [-----]		C/S [-----]			6
7						7
8	TIME [---/----]		REASON [-----]			8
9						9
10	REMARKS <----->					10
11						11
12						12
13						13
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24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS +DED CANX					32

123456789012345678901234567890123456789012345678901234

System Development Corporation
TM-LX-346/600/01

```

1
2
3
4 ENTER DPRT   DOWNED PILOT REPORT
5
6 MSN NO [-----]   C/S  [-----]
7
8 TIME   [---/----]   POSITION [-----]
9
10 WEATHER <----->
11
12 ENEMY ACTION  ----
13
14 REMARKS <----->
15
16
17
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31
32 +OPTIONS      +DED DPRT

```


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1234567890123456789012345678901234567890123456789012345678901234

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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1
2
3
4 ENTER IRSM IMMEDIATE RECCE SCRAMBLE REPORT
5
6 MSN NO [-----] REQ NO [-----]
7
8 C/S [-----] PRIORITY [-]
9
10 SCHEDULED TOT [---/----] SORTIES [--] A/C TYPE [-----]
11
12 TGT LOC A [-----] B ----- C -----
13 D ----- E ----- F -----
14
15 TGT AREA ----- TGT ELEV [-----]
16
17 TGT TYPE [<----->]
18
19 TYPE RECCE/ SURVEILLANCE <----->
20
21 LATEST TIME INFO IS OF VALUE ---/----
22
23
24
25
26
27
28
29
30
31
32 +OPTIONS +DED IRSM

1 2 3 4 5 6
12345678901234567890123456789012345678901234

System Development Corporation
TM-LX-346/600/01

```

1
2
3
4 ENTER INFR  INFLIGHT REPORT
5
6 MSN NO [-----]   C/S   -----
7
8 TGT NO  ---   TGT LOC ----- AS OF [---/---]
9
10 RESULTS <----->
11
12
13
14
15
16
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20
21
22
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24
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27
28
29
30
31
32 +OPTIONS      +DED INFR

```

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System Development Corporation
TM-LX-346/600/01

```

      1      2      3      4      5      6
123456789012345678901234567890123456789012345678901234

1  [
2  [
3  [
4  ENTER RSIR  JOINT TAC AIR RECCE/SURVEILLANCE INFLIGHT REPORT
5  [
6  MSN NO [-----]  C/S -----
7  [
8  REQ NO [-----]  TGT NO ----  TGT LOC -----
9  [
10 TOT  [---/----]
11 [
12 RESULTS <----->
13 [
14 [
15 [
16 [
17 [
18 [
19 [
20 [
21 [
22 [
23 [
24 [
25 [
26 [
27 [
28 [
29 [
30 [
31 [
32 +OPTIONS      +DED RSIR
      1      2      3      4      5      6
123456789012345678901234567890123456789012345678901234
```

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System Development Corporation
TM-LX-346/600/01

1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1						1
2						2
3						3
4	MULTI ARSQ JOINT TAC AIR RECCE/SURVEILLANCE REQ PART 1 OF 2					4
5						5
6	REQ NO [-----] TGT NO ---- TYPE [-] ASAP [- - -] PCA --					6
7						7
8	LATEST TIME INFO OF VALUE ---/---					8
9						9
10	TYPE RECCE <-----> PHOTO <----->					10
11						11
12	FILM TYPE - MAP/CHART <----->					12
13						13
14	TGT LOC A ----- B ----- C -----					14
15	D ----- E ----- F -----					15
16						16
17	AREA <----->					17
18						18
19	TGT CAT <----->					19
20						20
21	SPECIFIC EEI <----->					21
22						22
23						23
24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS +DED ARSQ -----					32
1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1		1
2		2
3		3
4	MULTI ARSQ2 JOINT TAC AIR RECCE/SURVEILLANCE REQ PART 2 OF 2	4
5		5
6	SCALE/LIMITS [DESIRED/MAX/MIN] <----->	6
7		7
8	DESIRED PRODUCT <----->	8
9		9
10	COPIES REQUESTED [PRINTS/PLOTS/REPORTS] -----	10
11		11
12	DELIVERY TIME [DESIRED/LATEST] <----->	12
13		13
14	PRI [-] PRECEDENCE -	14
15		15
16	SPEC INST <----->	16
17		17
18		18
19		19
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23		23
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25		25
26		26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DED ARSQ2	32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1						1
2						2
3						3
4	MULTI ACAQ JOINT TAC AIR REQ				PART 1 OF 2	4
5						5
6	REQ NO [-----]		DATE/TIME/SENDER		---/---/---	6
7						7
8	IMMED TYPE		-PREPLANNED TYPE	-	PRI [-]	8
9						9
10	TAC SIT -		AMOUNT/TYPE FIRE -----			10
11						11
12	TGT IS [----->]		PARAMETERS -----			12
13						13
14	TGT LOC A [-----]		B -----	C -----		14
15	D -----		E -----	F -----		15
16						16
17	CHART NO		<----->	AREA -----		17
18						18
19	ELV -----		TGT DIST/BEARING/LANDMARK		<----->	19
20						20
21	TGT MOBILITY		-	DIRECTION/SPEED -----		21
22						22
23	TIMING IS [-]		TIME [---/---]		TO ---/---	23
24						24
25	DESIRED RESULTS -					25
26						26
27	RECOM'D NO OF A/C		[--]	TYPE [-----] ORD -----		27
28						28
29	FUZING -----					29
30						30
31						31
32	+OPTIONS		+DED ACAQ -----			32
1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	

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1	2	3	4	5	6
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234
1					1
2					2
3					3
4	MULTI ACAQ2 JOINT TAC AIR REQ				PART 2 OF 2
5					5
6	FRIENDLY FORCES				6
7					7
8	POSITION A ----- B ----- DIR -- DIST ---				8
9					9
10	MARKING - TERRAIN DESCRIP ----- COLOR MARKING -----				10
11					11
12	FINAL CONTROL C/S ----- FREQ -----/-----				12
13					13
14	CONTROL PT ----- LOC -----				14
15					15
16	FINAL CONTROL CAPABILITY -				16
17					17
18	ATTACK HDG --- PULLOUT DIR - HDG --- MIN ALT ---				18
19					19
20	REMARKS <----->				20
21					21
22					22
23					23
24					24
25					25
26					26
27					27
28					28
29					29
30					30
31					31
32	+OPTIONS +DED ACAQ2				32

123456789012345678901234567890123456789012345678901234

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System Development Corporation
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      1      2      3      4      5      5
12345678901234567890123456789012345678901234
1
2
3
4 ENTER LDGR  LANDING REPORT
5
6 MSN NO [-----]  C/S  -----
7
8 A/C  [--]  LANDING TIME [---/---]
9
10 A/C NOT RETURNED [NO + C/S] <----->
11
12 LOC <----->
13
14 REASON <----->
15
16
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31
32 +OPTIONS  +DED LDGR
      1      2      3      4      5      5
12345678901234567890123456789012345678901234
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	1	2	3	4	5	6	
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234	
1							1
2							2
3							3
4	ENTER ONSR ON STATION REPORT						4
5							5
6	MSN NO [-----] C/S -----						6
7							7
8	TIME [---/----]						8
9							9
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28							28
29							29
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31							31
32	+OPTIONS +DED ONSR						32
	1	2	3	4	5	6	
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234	

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123456789012345678901234567890123456789012345678901234
1
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3
4 ENTER PRAD AIRCRAFT IN DISTRESS POSITIONS REPORT
5
6 MSN NO [-----] POSITION [-----]
7
8 TIME [---/----] ALT -- HEADING ---
9
10 ESTIMATED TIME REMAINING AIRBORNE ---- HRS+MINS
11
12 ANTICIPATED TOUCHDOWN LOCATION -----
13
14 ANTICIPATED TOUCHDOWN FIELD ----
15
16
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32 +OPTIONS +DED PRAD
123456789012345678901234567890123456789012345678901234
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System Development Corporation
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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1		1
2		2
3		3
4	ENTER REFR REFUELING REPORT	4
5		5
6	MESSAGE TYPE [-]	6
7		7
8	TANKER MSN NO [-----] C/S -----	8
9		9
10	MSN NO [-----] PRE/POST STRIKE [-]	10
11		11
12	REFUELING TIME [---/----] FUEL ON LOADED -----	12
13		13
14		14
15		15
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19		19
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28		28
29		29
30		30
31		31
32	+OPTIONS +DED REFR	32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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1
2
3
4 ENTER SMPR SAR POSITION REPORT
5
6 MSN NO [-----] C/S -----
7
8 A/C TYPE ----- POSITION [-----]
9
10 TIME [---/---]
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32 +OPTIONS +DED SMPR

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1	2	3	4	5	6	
123456789012345678901234567890123456789012345678901234						
1						1
2						2
3						3
4	ENTER SMRR SAR PROGRESS REPORT					4
5						5
6	MSN NO [-----] SAR REQ [-----] ENEMY ACTION -----					6
7						7
8	CONDITION					8
9	A/C <----->					9
10						10
11	PILOT <----->					11
12						12
13	ESTIMAT.					13
14	<----->					14
15						15
16	ACTUAL RESULTS					16
17	<----->					17
18						18
19	ESTIMATED TIME OF COMPLETION ---/---					19
20						20
21	ACTUAL TIME OF COMPLETION ---/---					21
22						22
23	ETR ---/---					23
24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS +DED SMRR					32
	1	2	3	4	5	
123456789012345678901234567890123456789012345678901234						

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1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1						1
2						2
3						3
4	ENTER TFAS TACS FACILITY STATUS REPORT					4
5						5
6	FACILITY [-----] AS OF [---/----] REPORT TYPE [----]					6
7						7
8	ITEM/CAUSE ETRO					8
9						9
10	--/- ---/----					10
11	--/- ---/----					11
12	--/- ---/----					12
13	--/- ---/----					13
14						14
15	REMARKS <----->					15
16						16
17						17
18						18
19						19
20						20
21						21
22						22
23						23
24						24
25						25
26						26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS +DED TFAS -----					32
1	2	3	4	5	6	
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	

	1	2	3	4	5	6	
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234	
1							1
2							2
3							3
4	ENTER TAAD TACTICAL ACTION DATA REPORT						4
5							5
6	TRACK DESIGNATOR [-----] REPORT TYPE [-]						6
7							7
8	ACTION/TIME <----->						8
9							9
10	RESULTS/TIME <----->						10
11							11
12	CLASS - CUMULATIVE KILLS --						12
13							13
14	REMARKS <----->						14
15							15
16							16
17							17
18							18
19							19
20							20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32	+OPTIONS +DED TAAD						32
	1	2	3	4	5	6	
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234	

123456789012345678901234567890123456789012345678901234

1
2
3
4 ENTER TAUS TACTICAL UNIT STATUS REPORT
5
6 UNIT [-----] LOC [----] AS OF [---/---]
7
8 A/C TYPE 1 [-----] A/C CREW A/C CREW
9
10 ASSIGNED -- -- POSSESSED -- --
11
12 OPERATIONALLY READY -- -- COMMITTED -- --
13
14 8 HRS -- --
15
16 24 HRS -- SORTIES 24 HRS --
17
18 LIMITING FACTORS <----->
19
20 A/C TYPE 2 -----
21 ASSIGNED -- -- POSSESSED -- --
22
23 OPERATIONALLY READY -- -- COMMITTED -- --
24
25 8 HRS -- --
26
27 24 HRS -- SORTIES 24 HRS --
28
29 LIMITING FACTORS <----->
30
31
32 +OPTIONS +DED TAUS -----

123456789012345678901234567890123456789012345678901234

	1	2	3	4	5	6	
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1							1
2							2
3							3
4	ENTER TKOR TAKEOFF REPORT						4
5							5
6	MSN NO [-----] C/S -----						6
7							7
8	SCHEDULED [--] AIRBORNE [--]						8
9							9
10	TAKEOFF TIME [---/----]						10
11							11
12	ETOT TGT 1 ---/----						12
13							13
14	TGT 2 ---/----						14
15							15
16	TGT 3 ---/----						16
17							17
18	TGT 4 ---/----						18
19							19
20	ETR [---/----]						20
21							21
22							22
23							23
24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32	+OPTIONS +DED TKOR						32
	1	2	3	4	5	6	
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	

3.1.2.7.2.4.3.2 Data Entry Displays - Mission Adjustment

In addition to the DED capability provided to give the operator the ability to manually enter messages that are processed by the Input Message Processing Function, a DED capability is provided to direct and control the operation of the Mission Adjustment Function. The following displays are included in this group:

		PAGE
Candidate CAS Requirements Selection	CCRS	322
Candidate RECCE Requirements Selection	CRRS	324
Candidate Target Requirements Selection	CTRS	326
Candidate Fighter Missions Selection	CFMS	328
Candidate RECCE Missions Selection	CRMS	331
Candidate Fighter Mission Schedule Display Request	CFSD	334
Candidate RECCE Mission Schedule Display Request	CRSD	336
Fighter Planning/Adjustment	FPAD	338
RECCE Planning/Adjustment	RPAD	341
Support Mission Planning	SMPD	344
SAR Assignment	SRAD	347

Each of these displays is requestable by a four-letter identifier assigned to each message, as noted above.

The information that is contained in each of these messages and the methods for processing data input via these messages is fully specified in the Mission Adjustment Function, Section 3.1.2.4.

The content of each display together with a sample display format is provided. The content sheet identifies the specific display fields that are contained by name and indicates the type of information contained in each field.

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1		1
2		2
3		3
4	CRSD CAS CANDIDATE CAS REQUIREMENTS SELECTION	4
5		5
6	LOWEST PRIORITY [-] A/C TYPE -	6
7		7
8	NO OF SORTIES --	8
9		9
10		10
11		11
12		12
13		13
14		14
15		15
16		16
17		17
18		18
19		19
20		20
21		21
22		22
23		23
24		24
25		25
26		26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DED CCRS	32
	1 2 3 4 5 6	
	123456789012345678901234567890123456789012345678901234	

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DISPL./ NAME: Candidate CAS Requirements Selection

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGITIMACY	
1. Lowest Priority	LOWEST PRIORITY	1 n	1-4	✓	✓	
2. Aircraft Type	A/C TYPE	6 an				
3. Number of Sorties	NO OF SORTIES	2 n	01-99	✓		

	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
	1	2	3	4	5	6
1	CRSD RECCE CANDIDATE RECCE REQUIREMENTS SELECTION					
2	LOWEST PRIORITY [-] RECCE TYPE -					
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32	+OPTIONS +DED CRRS					
	1	2	3	4	5	6
	1	2	3	4	5	6

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DISPLAY NAME: Candidate RECCE Requirements Selection

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGACY	
1. Lowest Priority	LOWEST PRIORITY	1 n	1-4	✓	✓	
2. RECCE type	RECCE TYPE	1 a	A-J	✓		A = VISUAL B = PHOTO C = ELECT D = WX E = TV F = RADAR G = SLAR H = INFRARED I = LASER J = OTHER

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1	CRSD TGT	CANDIDATE TARGET REQUIREMENTS SELECTION
2		
3	LOWEST PRIORITY	[-] A/C TYPE -----
4		
5	NO OF SORTIES	-- ORD CODE ----
6		
7	TOT INTERVAL	---/---- ----
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		
26		
27		
28		
29		
30		
31		
32	+OPTIONS	+DED CTRS

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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DISPLAY NAME: Candidate Target Requirements Selection

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	REQUIREMENT		REMARKS
				REQUIRED	LEGIBILITY	
1. Lowest Priority	LOWEST PRIORITY	1 n	1-4	✓	✓	
2. Aircraft Type	A/C TYPE	6 an				
3. Number of Sorties	NO OF SORTIES	2 n	01-99	✓		
4. Ordnance Code	ORD CODE	4 an				
5. Time over Target Interval	TOT INTERVAL	8n + 4n	---/DDDD DDDD	✓		DTG 001/0001-366/2400 TIME 0001-2400

123456789012345678901234567890123456789012345678901234

1		1
2		2
3		3
4	CMSD CANDIDATE FIGHTER MISSIONS SELECTION	4
5		5
6	START ETD [---/----] END ETD [---/----]	6
7		7
8	EXAMINE ALERT FIRST --- HIGHEST PRIORITY -	8
9		9
10	NO OF SORTIES [--] ORD CODE ----	10
11		11
12	FOR CANDIDATE FIGHTER MISSION SCHEDULE DISPLAY ENTER	12
13		13
14	REQ/TGT NO [-----] TOT ---/----	14
15		15
16	INGRESS PT -- EGRESS PT --	16
17		17
18		18
19		19
20		20
21		21
22		22
23		23
24		24
25		25
26		26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DED CFMS	32

123456789012345678901234567890123456789012345678901234

DISPLAY NAME: Candidate Fighter Missions Selection

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGITIMACY	
1. Beginning ETD for selection process	START ETD	8 an	---/DDDD of DDD/DDDD	✓	✓	Date time group
2. End time ETD for selection process	END ETD	8 an	---/DDDD or DDD/DDDD	✓	✓	
3. Directions for selecting alert aircraft	EXAMINE ALERT FIRST	3 a	--- YES			
4. Highest priority to be selected as a Candidate Msn	HIGHEST PRIORITY	1 n	1-4			
5. Number of sorties reqd for selection for Fighter Candidate	NO OF SORTIES	2 n	01-99	✓	✓	
6. Ordnance code	ORD CODE	4 an	L-DD	✓	✓	

DISPLAY NAME: Candidate Fighter Missions Selection (Cont'd)

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	REQUIRED LEGALITY		REMARKS
				REQUIRED	LEGALITY	
7. Request or Target number for the Genera- tion of the Candidate Msn Schedule display	REQ/TGT NO	5 an		✓		LLDD=TARGET LL-DD=CAS REQUEST
8. Time over target required for Candidate Msn Schedule dis- play	TOT	8 an	---/DDDD or DDD/DDDD	✓		
9. Ingress point	INGRESS PT	2 a				
10. Egress point	EGRESS PT	2 a				

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```
123456789012345678901234567890123456789012345678901234
1
2
3
4 CMSD          CANDIDATE RECCE MISSIONS SELECTION
5
6 START ETD  [---/----]    END ETD  [---/----]
7
8 EXAMINE ALERT FIRST      --- HIGHEST PRIORITY  -
9
10 NO OF SORTIES  --
11
12      FOR CANDIDATE RECCE MISSION SCHEDULE DISPLAY ENTER
13
14      REQ NO [-----]    TOT    ---/----
15
16      INGRESS PT  --      EGRESS PT  --
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32 +OPTIONS      +DED CRMS
123456789012345678901234567890123456789012345678901234
```


DISPLAY NAME: Candidate RECCE Missions Selection

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGITIMACY	
1. Beginning ETD for selection process	START ETD	8 an	---/DDDD or DDD/DDDD	✓	✓	Date time group
2. End time ETD for selection process	END ETD	8 an	---/DDDD or DDD/DDDD	✓	✓	
3. Directions for selecting alert aircraft	EXAMINE ALERT FIRST	3 a	--- YES			
4. Highest priority to be selected as a Candidate Msn	HIGHEST PRIORITY	1 n	1-4			
5. Number of sorties reqd for RECCE Candidate Selection	NO OF SORTIES	2 n	01-99	✓		
6. Request number for the Genera- tion of the Candidate Msn Schedule display	REQ NO	7 an		✓		LL-R-DD=RECCE REQUEST

DISPLAY NAME: Candidate RECCE Missions Selection (Cont'd)

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGITIMACY	
7. Time over target required for Candidate Msn Schedule display	TOT	8 an	---/DDDD or DDD/DDDD		✓	
8. Ingress point	INGRESS PT	2 a				
9. Egress point	EGRESS PT	2 a				

	1	2	3	4	5	6					
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234					
1	CMSD CANDIDATE FIGHTER MISSION SCHEDULE DISPLAY REQUEST						1				
2							MSN NO [-----] REQ/TGT NO [-----]	TOT ---/----	INGRESS PT --	EGRESS PT --	2
3											3
4							4				
5							5				
6							6				
7							7				
8							8				
9							9				
10							10				
11							11				
12							12				
13							13				
14							14				
15							15				
16							16				
17							17				
18							18				
19							19				
20							20				
21							21				
22							22				
23							23				
24							24				
25							25				
26							26				
27							27				
28							28				
29							29				
30							30				
31							31				
32	+OPTIONS +DED CFSD						32				

	1	2	3	4	5	6
	12345678901234	56789012345678901234	56789012345678901234	56789012345678901234	56789012345678901234	5678901234

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DISPLAY NAME: Candidate Fighter Mission Schedule Display Request

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGITIMACY	
1. Mission Number	MSN NO	12 an		✓	✓	
2. Request or Target number for the Genera- tion of the Candidate Msn Schedule display	REQ/TGT NO	5 an		✓		LLDD=TARGET LL-DD=CAS REQUEST
3. Time over target required for Candidate Msn Schedule display	TOT	8 an	---/DDDD or DDD/DDDD	✓		
4. Ingress point	INGRESS PT	2 a				
5. Egress point	EGRESS PT	2 a				

DISPLAY NAME: Candidate RECCE Mission Schedule Display Request

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGACY	
1. Mission Number	MSN NO	12 an		✓	✓	
2. Request number for the Genera- tion of the Candidate Msn Schedule display	REQ NO	7 an		✓		LL-R-DD=RECCE REQUEST
3. Time over target required for Candidate Msn Schedule display	TOT	8 an	---/DDDD or DDD/DDDD	✓		
4. Ingress point	INGRESS PT	2 a				
5. Egress point	EGRESS PT	2 a				

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

1	FPAD	FIGHTER PLANNING ADJUSTMENT	1
2			2
3			3
4	UNIT	[-----] OR MSN NO [-----] BASE ----	4
5			5
6	A/C TYPE	[-----] NO OF SORTIES [--]	6
7			7
8	ORD CODE 1	[---] ORD CODE 2 ----	8
9			9
10	REQ/TGT NO	[---] TOT [---/---]	10
11			11
12			12
13			13
14			14
15			15
16			16
17			17
18			18
19			19
20			20
21			21
22			22
23			23
24			24
25			25
26			26
27			27
28			28
29			29
30			30
31			31
32			32

FOR INTERDICTION/COUNTER AIR MISSIONS ENTER

ALTERNATE TGT 1 ---- 2 ----

INGRESS PT -- EGRESS PT --

REMARKS <----->

*OPTIONS +DED FPAD -----

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

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DISPLAY NAME: Fighter Planning Adjustment

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGIT	
1. Unit	UNIT	6 an		*		Item 1 or 2 required
2. Mission number	MSN NO	12 an		*		Item 1 or 2 required
3. Departure base	BASE	4 a				
4. Type of aircraft required	A/C TYPE	6 an		✓		
5. Number of sorties reqd	NO OF SORTIES	2 n	01-99	✓	✓	
6. Ordnance code 1 required	ORD CODE 1	4 an	L-DD	✓		
7. Ordnance code 2	ORD CODE 2	4 an				
8. Request or target number	REQ/TGT NO	5 an		✓		REQ NO for CAS Mission TGT NO for IN/CA Missions
9. Time over target	TOT	8 an	---/DDDD DDD/DDDD	✓	✓	
10. Alternate target 1 for IN/CA msn	ALTERNATE TGT 1	4 an	LLDD			
11. Alternate target 2 for IN/CA msn	2	4 an	LLDD			

DISPLAY NAME: Fighter Planning Adjustment (Cont'd)

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGALLY	
12. Ingress point for IN/CA msns	INGRESS PT	2 a		✓		
13. Egress point for IN/CA msns	EGRESS PT	2 a		✓		
14. Remarks	REMARKS	50 an				

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	1	2	3	4	5	6
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234
1						
2						
3						
4	RPAD RECCE PLANNING ADJUSTMENT					
5						
6	UNIT [-----] OR MSN NO [-----] BASE ----					
7						
8	A/C TYPE [-----] NO OF SORTIES [--]					
9						
10	REQ NO 1 [-----] 2 ----- 3 ----- 4 -----					
11						
12	TOT [---/---] TOT FOR REQ NO -					
13						
14	INGRESS PT -- EGRESS PT --					
15						
16	REMARKS <----->					
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						
31						
32	OPTIONS +DED RPAD -----					

	1	2	3	4	5	6
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234

DISPLAY NAME: RECCE Planning Adjustment

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGACY	
1. Unit	UNIT	6 an		*	✓	Item 1 or 2 required
2. Mission number	MSN NO	12 an	DDD-DDD-LLDD	*	✓	Item 1 or 2 required
3. Departure Base	BASE	4 a	LLLL			
4. Type of aircraft	A/C TYPE	6 an		✓		
5. Number of sorties reqd	NO OF SORTIES	2 n	01-99	✓	✓	
6. RECCE Request number 1	REQ NO 1	7 an		✓	✓	
7. RECCE Request number 2	2	7 an				
8. RECCE Request number 3	3	7 an				
9. RECCE Request number 4	4	7 an				
10. Time over tgt	TOT	8 an	---/DDDD DDD/DDDD	✓	✓	DATE/TIME
11. Time over tgt for RECCE req	TOT FOR REQ NO	1 n	1-4			

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DISPLAY NAME: RECCE Planning Adjustment (Cont'd)

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	REQUIRED LEGALITY		REMARKS
12. Ingress point	INGRESS PT	2 a				
13. Egress point	EGRESS PT	2 a				
14. Remarks	REMARKS	50 an				

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1234567890123456789012345678901234567890123456789012345678901234

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DISPLAY NAME: Support Mission Planning Display

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGACY	
1. Unit	UNIT	6 an	DDDLLL	✓		
2. Departure base	BASE	4 a	LLLL			
3. Mission type	MSN TYPE	6 a	EW ESCORT CAP	✓	✓	
4. Type aircraft required	A/C TYPE	6 an		✓		
5. Number of air- craft required	NO OF SORTIES	2 n	01-99	✓	✓	
6. Ordnance code required	ORD CODE	4 an	L-DD			
7. Type of EW support reqd	EW TYPE	7 a				
8. Mission numbers of supported mission	SUPPORT MSN NO	5-12 an	DDD-DDD-LLDD			
9. Control/Orbit or rendezvous point for support msn	CONTROL/ ORBIT/REN- DEZVOUS	12 an	DDDDL/DDDDL	✓		LAT/LONG
10. Required time at orbit or control point	REQ TIME	8 an	---/DDDD or DDD/DDDD	✓	✓	

DISPLAY NAME: Support Mission Planning Display (Cont'd)

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED		
11. Duration	DURATION	4 an	0+01 9+59	✓		Hours and Minutes
12. Ingress point	INGRESS POINT	2 a		✓		
13. Egress point	EGRESS POINT	2 a		✓		
14. Remarks	REMARKS	50 an				

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1	2	3	4	5
123456789012345678901234567890123456789012345678901234				
1				
2				
3				
4	SRAD	SAR ASSIGNMENT		
5				
6	MSN NO	[------]	SAR REQ NO	[----]
7				
8	REMARKS	←-----→		
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31	+OPTIONS	+DED SRAD		
32				

1	2	3	4	5
123456789012345678901234567890123456789012345678901234				

DISPLAY NAME: SAR Assignment Display

FIELD	LABEL	NO. & TYPE OF CHARS.	RANGE OR VALUE	LEGALITY		REMARKS
				REQUIRED	LEGACY	
1. Mission number of SAR mission assigned to SAR requiremnt	MSN NO	12 an	DDD-DDD-LLDD	✓	✓	
2. SAR requirement number	SAR REQ NO.	5 an	LLDD	✓	✓	
3. Remarks	REMARKS	50 an				

3.1.2.7.3 Mission Schedule and Mission Displays

The capability to select a group of missions by type or subtype and have the scheduled data associated with the selected missions displayed in a time ordered sequence is provided to the user station operator. There are basically four different display formats used for the presentation of mission schedule information. These are Fighter, RECCE, Tanker and Search and Rescue. In addition to the capability to display schedule data for missions grouped by type or subtype, the capability is also provided to display selected Frag Order and mission schedule information contained in the data base related to a specific mission. In the cases of tankers, immediate CAS and immediate RECCE, Frag order data is not displayed. This permits the user station operator to have access to all critical data related to a specific mission in a single display. The operator may select the "+PRINT" option upon presentation of these displays or, in the original display request, specify that the display be presented on the user station printer.

Format and data sheets are included for each display. The format sheets are pictorial representations of the displays as they appear on the display surfaces; lines and columns are numbered to permit the identification of display field starting points. The data sheets define the contents of the displays; there are three major headings on these sheets: Display, Data Base and Remarks. The contents of these areas are as follows:

A. Display - This is composed of three types of information:

1. Field - This contains a descriptive identification of the data contained in the display field.
2. Title - This contains the displayed name of the data field identified in the first column.
3. Number and Type of Characters - This defines the type of coding allowed and the maximum number of characters available in the field. The number does not always agree with the number of characters specified for the corresponding file property in Section 3.1.3. This is due to two factors: First, some properties are truncated to permit effective display character utilization. When this has occurred, a plus sign is displayed as the last character in the field. Second, some display fields can be used for different file properties depending upon the mission. Where this is the case, allowance is made for the longest of the possible properties.

B. Data Base - This contains the identification of the file and property corresponding to the data field.

1. File - Provision is made for the identification of up to three files to be used in the construction of the display. The files are identified by one alphabetic character code each in the column heading. The letters used are identified in the discussions of the different display types. An entry is made in the appropriate column to identify the source file for each property associated with a display field.
2. Property - This column contains the file property name or names corresponding to the display field. For each property, the source file is indicated as noted above. The names are those used in the Data Base description Section 3.1.3.

C. Remarks - This contains any explanatory information needed to clarify the Display or Data Base columns.

3.1.2.7.3.1 Source and Type of Inputs

3.1.2.7.3.1.1 Mission Schedule Display

The following data base files are required input for the generation of mission schedule displays.

Air Refueling Mission Schedule
Electronic Warfare Frag Order/Mission Schedule
Immediate Close Air Support Mission Schedule
Immediate Reconnaissance Mission Schedule
Preplanned Fighter Frag Order/Mission Schedule
Preplanned Reconnaissance Frag Order/Mission Schedule
Search and Rescue Frag Order/Mission Schedule

The mission schedule information necessary to generate the display requested at a user station is retrieved as required from these data base files.

There are two operator actions that also are inputs to the display of mission schedules. The first action is the "BUILD SCHEDULE" action which causes the schedule to be generated, sorted, stored and the first page displayed. The second action is the "SCHED" action. This action permits an operator to request for display a specified page of the last Mission Schedule display generated and stored as a result of the "BUILD SCHEDULE" action being taken by the same operator.

The Build Schedule action permits the operator:

1. To specify the mission types to be included in the mission schedule display.
2. To specify the type of event time (ETD or ETOT) by which the missions are to be sorted in the display.
3. To specify a time reference to be used as the criterion for selecting the missions to be displayed.
4. To specify the display surface or the user station printer as the output medium for the resulting displays.

The mission types for which an operator may request a schedule to be generated are:

Fighter	Interdiction/Counter Air
Reconnaissance	Escort
Refueling	Combat Air Patrol
Search and Rescue	Electronic Warfare
Close Air Support	

The displays of schedules for RECCE and CAS missions are requestable as Preplanned, Immediate or both subtypes of missions.

The type of time which may be specified for sequential arrangement of the missions occurring in the mission display may be either the estimated time of departure of the mission or the time over target scheduled for the mission. The mission schedule display is organized by the time specified in the operator action. If no type of time is specified, the estimated time of departure is used.

When taking the Build Schedule action, the operator may specify a time reference to be used in selecting missions for display. He may call for missions which have an event time (ETD or ETOT) occurring before a specified time, after a specified time, or between two specified times. This permits him to restrict the number of missions which qualify for display. If a time reference is not specified, all missions of the indicated type are processed for display.

The total number of missions which meet the selection criteria is displayed in the second line. If no missions qualify, a statement to this effect is displayed. The two display messages are "XX QUALIFIERS" and "NO QUALIFIERS" as appropriate.

3.1.2.7.3.1.2 Mission Display

The Mission Display request action required to produce a display containing selected data related to a specific mission is also an input to this capability. This request action contains only the action title and the mission number for which the display is desired. All frag order/mission schedule files are inputs to this display process as required.

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3.1.2.7.3.2 Destination and Type of Outputs

3.1.2.7.3.2.1 Mission Schedule Displays

Mission Schedule Displays are generated in one of four basic formats, the formats are RECCE, Fighter, Refueling or Search and Rescue. The following table indicates the format type used for each of the schedule types for which requests can be entered and the appropriate request code for each.

Schedule Type	Mission Schedule Display Format Type				Code
	Fighter	RECCE	SAR	Tanker	
1. Fighter	X				FIGHTER
2. Preplanned Fighter	X				PFIGHTER
3. Reconnaissance		X			RECCE
4. Refueling				X	AR
5. Search and Rescue			X		SR
6. Close Air Support	X				CAS
7. Interdiction/Counter Air	X				IN/CA
8. Escort	X				ESCORT
9. Combat Air Patrol	X				CAP
10. Electronic Warfare		X			EW
11. Immediate CAS	X				ICAS
12. Preplanned CAS	X				PCAS
13. Immediate RECCE		X			IRECCE
14. Preplanned RECCE		X			PRECCE
Page	362	355	376	371	

3.1.2.7.3.2.1.1 RECCE Mission Schedule Display

This display is generated by operator request. The following mission type schedule displays are generated using this format:

RECCE (RECCE)

Immediate RECCE (IRECCE)

Preplanned RECCE (PRECCE)

Electronic Warfare (EW)

Preceding page blank

The Build Schedule request permits the operator to request the missions qualifying for this display to be sorted by Estimated Departure Time or Estimated Time Over Target. When EW missions qualify for the schedule display the Estimated Time at Orbit Point will be used as a sort value when Estimated Time Over Target has been selected for mission ordering for display purposes.

In addition to the mission ordering options available to the operator, he also is able to control the number of missions appearing in the display by assigning a time interval in his request for schedule generation.

This display contains 2 sets of schedule data per mission and allows the schedules for 10 missions to be included per display page. The number of pages required for this schedule is determined by the number of missions that qualify for the schedule requested.

The following table indicates the mission types that qualify by each type of RECCE mission schedule request and identifies the data base files in which schedule information is found. The letter in parenthesis next to the file name is used to identify the file on the data sheets for the individual displays.

SCHEDULE TYPES				FILES
IRECCE	PRECCE	RECCE	EW	
X		X		IRECCE MISSION SCHEDULE (I)
	X	X		PRECCE FRAG ORDER/MISSION SCHEDULE (P)
		X	X	EW FRAG ORDER/MISSION SCHEDULE (E)

1 2 3 4 5 6
12345678901234567890123456789012345678901234

```
1 SCHED PAGE 1 SET 1
2
3
4 XXXXXX MISSION SCHEDULE
5
6 PAGE 1 OF 2 SET 1 OF 2
7
8 A/C
9 MSN NO NO TYPE ETD ATD STOT ATOT ETR ATR REQ NO P
10 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
11
12 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
13
14 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
15
16 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
17
18 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
19
20 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
21
22 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
23
24 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
25
26 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXXXXXX X
27
28
29
30
31
32 +OPTIONS +BUILD MISSION ----- +PRINT
```

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: RECCE Schedule

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	PROPERTY	FILE				
				P	I	E		
1. Display Title	MISSION SCHEDULE	6 a						The display title is determined by the mission type specified in the "BUILD SCHEDULE" action. These properties make up SET 1 of the RECCE Mission Schedule Display.
2. Mission Number	MSN NO	12 an		X	X	X	MSN-NUM	
3. Number of A/C	A/C NO	2 n		X	X	X	SORT	
4. A/C Type	TYPE	6 an		X	X	X	A/C-TYPE	
5. Estimated Time of Departure	ETD	4 n	X				TIME-20	
				X			TIME-2	
					X		TIME-10	
6. Actual Time of Departure	ATD	4 n	X				TIME-21	
				X			TIME-3	
					X		TIME-11	
7. Scheduled Time over Target	STOT	4 n	X				TIME-23	Scheduled time over target for Request-1.
				X			TIME-5	
8. Actual Time over Target	ATOT	4 n	X				TIME-24	Time over Target for Request-1.
				X			TIME-6	

DISPLAY TYPE: RECCE Schedule (Cont'd)

DISPLAY		NO. & TYPE OF CHARS.	DATA BASE				REMARKS
FIELD	LABEL		FILE			PROPERTY	
			P	I	E		
9. Estimated Time of Return	ETR	4 n	X			TIME-31	
				X		TIME-7	
					X	TIME-15	
10. Actual Time of Return	ATR	4 n	X			TIME-32	
				X		TIME-8	
					X	TIME-16	
11. RECCE request number	REQ NO	7 an	X			REQ-NUM-1	
				X		REQ-NUM	
12. Priority of RECCE request	P	1 n	X			REQ-PRI-1	
				X		PRI	

1	2	3	4	5	6	
123456789012345678901234567890123456789012345678901234						
1	SCHED PAGE 1 SET 2					1
2						2
3						3
4	XXXXXX MISSION SCHEDULE					4
5	PAGE 1 OF 2 SET 2 OF 2					5
6	NO. OF					6
7	MSN NO	C/S	REQ	RESULTS/REMARKS		7
8	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		8
9						9
10	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		10
11						11
12	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		12
13						13
14	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		14
15						15
16	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		16
17						17
18	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		18
19						19
20	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		20
21						21
22	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		22
23						23
24	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		24
25						25
26	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	X	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS	+BUILD MISSION	-----	+PRINT		32

1 2 3 4 5 6

123456789012345678901234567890123456789012345678901234

DISPLAY TYPE: RECCE Schedule

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
1. Display title	MISSION SCHEDULE	6 a						The title of the Schedule is determined by the schedule type identified in the BUILD SCHEDULE action. These properties make up SET 2 of the RECCE Mission Schedule.
2. Mission Number	MSN NO	12 an	X	X	X	MSN-NUM		
3. Mission Callsign	C/S	15 an	X	X	X	C/S		
4. Number of RECCE Requests Assigned to Mission	NO.of REQ	1 n	X			NUM-REQ		Set to 1 for IRECE.
5. Mission Results	RESULTS/ REMARKS	25 an	X				REMARKS-2	
				X			REMARKS	
					X		MSN-RESULT	

3.1.2.7.3.2.1.2 Fighter Mission Schedule Display

This schedule is generated at the request of an operator. The schedule once generated is to be stored and available at the user station at which the generation request was initiated. The display presents the general format for all fighter mission schedules. The display information is organized into three sets of data per page. Each display page contains schedule data for a maximum of ten missions. The number of pages generated depends on the number of fighter missions currently scheduled that meet the criteria established in the BUILD SCHEDULE action taken by the operator.

This action allows the operator to specify three variables which define the missions to be included in the schedule being generated. The variables are: (1) mission type/subtype, (2) sorting time (ETD or ETOT), and (3) time period.

The following type schedules when requested by the operator are prepared in this format:

- Fighter (FIGHTER)
- Preplanned Fighter (PFIGHTER)
- Close Air Support (CAS)
- Immediate Close Air Support (ICAS)
- Preplanned Close Air Support (PCAS)
- Interdiction (IN/CA)
- Counter Air (IN/CA)
- Escort (ESCORT)
- Combat Air Patrol (CAP)

In addition to specifying the type schedule desired, the operator can specify a time period of interest for the schedule display. This option provides a time period identified in the generation request. There are three methods of specifying the time period, Before, After, and Between. The Before action allows the schedules for all missions with a sorting time

before the time specified to be included in the schedule display. The After action allows all missions with a sorting time after the time specified to be included in the display. The Between action permits the operator to specify the time interval between two specific times. All missions with a sorting time in this time period are included in the display.

The following table indicates the mission types that qualify by each type of Fighter mission schedule request and identifies the data base files in which schedule information is found. The letter in parenthesis next to the file name is used to identify the file on the data sheets for the individual displays.

SCHEDULE TYPES								FILES
Fighter	Preplanned Fighter	Close Air Support	ICAS	PCAS	Intercounter Air	Escort	Combat Air Patrol	
X		X	X					IMMEDIATE CLOSE AIR SUPPORT MISSION SCHEDULE (I)
X	X	X		X	X	X	X	PREPLANNED FIGHTER FRAG/-ORDER/MISSION SCHEDULE (P)

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 SCHED PAGE 1 SET 1
2
3
4 XXXXXXXX MISSION SCHEDULE
5 PAGE 1 OF 2 SET 1 OF 3
6 A/C REQ/
7 MSN NO NO TYPE ETD ATD STOT ATOT ETR ATR TGT NO P
8 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
9
10 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
11
12 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
13
14 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
15
16 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
17
18 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
19
20 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
21
22 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
23
24 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
25
26 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX XXXX XXXX XXXX XXXX X
27
28
29
30
31
32

OPTIONS +BUILD MISSION ----- +PRINT

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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DISPLAY TYPE: Fighter Schedule

DISPLAY TYPE: Fighter Schedule									
DISPLAY			DATA BASE				REMARKS		
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY			
			P	I	E				
1. Display title	MISSION SCHEDULE	8a					The title of the Schedule is determined by the schedule type identified in the "BUILD SCHEDULE" action. These properties make up SET 1 of the Fighter Schedule display.		
2. Mission number	MSN NO	12 an	X	X		MSN-NUM			
3. Number of A/C	A/C NO	2 n	X	X		SORT			
4. A/C Type	TYPE	6 an	X	X		A/C-TYPE			
5. Estimated Time of departure	ETD	4 n	X			TIME-11			
				X		TIME-1			
6. Actual time of departure	ATD	4 n	X			TIME-12			
				X		TIME-2			
7. Scheduled time over target	STOT	4 n	X			TIME-14			
				X		TIME-4			
8. Actual time over target	ATOT	4 n	X			TIME-15			
				X		TIME-5			
9. Estimated time to return	ETR	4 n	X			TIME-16			
				X		TIME-6			

DISPLAY TYPE: Fighter Schedule (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
10. Actual time of return	ATR	4 n	X			TIME-17 TIME-7		
11. CAS Request or target number	REQ/TGT NO	5 an	X X	X		TGT-NUM REQ-NUM	IN/CA missions ICAS/PCAS missions	
12. Priority of target or request	P	1 n	X	X		REQ-PRI PRI		

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 SCHED PAGE 1 SET 2 1
2 2
3 3
4 4
5 XXXXXXXX MISSION SCHEDULE 5
6 PAGE 1 OF 2 SET 2 OF 3 6
7 ORD CODE 7
8 MSN NO C/S 1 2 CONTROL 8
9 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 9
10 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 10
11 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 11
12 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 12
13 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 13
14 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 14
15 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 15
16 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 16
17 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 17
18 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 18
19 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 19
20 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 20
21 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 21
22 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 22
23 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 23
24 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 24
25 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 25
26 XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXX XXXX XXXXXXXXXXXXXXXXXXXX 26
27 27
28 28
29 29
30 30
31 31
32 +OPTIONS +BUILD MISSION ----- +PRINT 32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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DISPLAY TYPE: Fighter Schedule

DISPLAY TYPE: Fighter Schedule

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
1. Display title	MISSION SCHEDULE	8 a						The following properties make up SET 2 of the Fighter Mission schedule.
2. Mission callsign	C/S	15 an	X	X			C/S	
3. Ordnance Code 1	ORD CODE 1	4 an	X				ORD-1	
				X			ORD	
4. Ordnance Code 2	2	4 an	X				ORD-2	
5. Control agency	CONTROL	15 an	X				CTRL-AGENCY	

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1	2	3	4	5	6	
123456789012345678901234567890123456789012345678901234						
1	SCHED PAGE 1 SET 3					1
2						2
3						3
4	XXXXXXXXX MISSION SCHEDULE					4
5	PAGE 1 OF 2 SET 3 OF 3					5
6						6
7	MSN NO	FAC	RESULTS/REMARKS			7
8	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			8
9						9
10	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			10
11						11
12	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			12
13						13
14	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			14
15						15
16	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			16
17						17
18	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			18
19						19
20	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			20
21						21
22	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			22
23						23
24	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			24
25						25
26	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			26
27						27
28						28
29						29
30						30
31						31
32	OPTIONS	+BUILD MISSION	-----		+PRINT	32

1	2	3	4	5	6
123456789012345678901234567890123456789012345678901234					

DISPLAY TYPE: Fighter Schedule

DISPLAY		NO. & TYPE OF CHARS.	DATA BASE				REMARKS
FIELD	LABEL		FILE			PROPERTY	
			P	I	E		
1. Display title	MISSION SCHEDULE	8 a					These properties make up SET 3 of the Fighter Mission Schedule display
2. Mission number	MSN NO	12 an	X	X		MSN-NUM	
3. FAC	FAC	15 an	X	X		FAC-C/S FIN-CTR-C/S	
4. Mission results or remarks	RESULTS/ REMARKS	33 an	X X	X		MSN-RESULT REMARKS 1	PCAS IN/CA ICAS ES and CAP

3.1.2.7.3.2.1.3 Refueling Mission Schedule Display

This schedule is generated at the request of an operator. The schedule is stored after generation and is available thereafter to the user station requesting the generation of the display. The display presents 10 missions per page with a maximum of two pages. Two sets are required for this display. The display contains schedule information on as many as 12 Refueling Missions and the missions are ordered by Scheduled On Station Time. There are no options for sorting or time period selections available to the operator when requesting the generation of this schedule display. The Air Refueling Mission Schedule file code used in the data sheets is "R". The request code for the Refueling Mission Schedule Display is "AR".

1	2	3	4	5	6				
12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234				
1	SCHED PAGE 1 SET 1					1			
2						2			
3						3			
4	REFUELING MISSION SCHEDULE					4			
5	PAGE 1 OF 1 SET 1 OF 2					5			
6	TOTAL UNSCHED TOTAL REFUEL					6			
7	MSN NO	STOS	ATOS	OFST	FUEL	FUEL	RCVRS	AREA	7
8	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	8
9									9
10	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	10
11									11
12	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	12
13									13
14	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	14
15									15
16	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	16
17									17
18	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	18
19									19
20	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	20
21									21
22	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	22
23									23
24	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	24
25									25
26	XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXX	XXXXXX	XX	X	26
27									27
28									28
29									29
30									30
31									31
32	+OPTIONS +BUILD MISSION ----- +PRINT								32

1 2 3 4 5 6

123456789012345678901234567890123456789012345678901234

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DISPLAY TYPE: Refueling Schedule

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY			
			R					
1. Display title	REFUELING MISSION SCHEDULE						These properties make up Set 1 of the Refueling Mission Schedule display.	
2. Mission number	MSN NO	12 an	X		MSN-NUM			
3. Schedule time on station	STOS	4 n	X		TIME-1			
4. Actual on station time	ATOS	4 n	X		TIME-2			
5. Scheduled off station time	OFST	4 n	X		TIME-3			
6. Total fuel on tanker	TOTAL FUEL	6	X		TOTAL-FUEL	100 lbs units		
7. Fuel on tanker not scheduled	UNSCHED FUEL	6	X		UNSCHED-FUEL			
8. Total number of sorties sched. for refueling	TOTAL RCVRS	2	X		TOTAL-SORT			
9. Refuel area	REFUEL AREA	1	X		REFUEL-AREA	The first letter of the area is used.		

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1	2	3	4	5	6	
12345678901234567890123456789012345678901234						
1	SCHED PAGE 1 SET 2					1
2						2
3						3
4	REFUELING MISSION SCHEDULE					4
5	PAGE 1 OF 1 SET 2 OF 2					5
6						6
7	MSN NO	C/S				7
8	XXXXXXXXXXXX	XXXXXXXXXXXX				8
9						9
10	XXXXXXXXXXXX	XXXXXXXXXXXX				10
11						11
12	XXXXXXXXXXXX	XXXXXXXXXXXX				12
13						13
14	XXXXXXXXXXXX	XXXXXXXXXXXX				14
15						15
16	XXXXXXXXXXXX	XXXXXXXXXXXX				16
17						17
18	XXXXXXXXXXXX	XXXXXXXXXXXX				18
19						19
20	XXXXXXXXXXXX	XXXXXXXXXXXX				20
21						21
22	XXXXXXXXXXXX	XXXXXXXXXXXX				22
23						23
24	XXXXXXXXXXXX	XXXXXXXXXXXX				24
25						25
26	XXXXXXXXXXXX	XXXXXXXXXXXX				26
27						27
28						28
29						29
30						30
31						31
32	+OPTIONS +BUILD MISSION ----- +PRINT					32

123456789012345678901234567890123456789012345678901234

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DISPLAY TYPE: Refueling Schedule

DISPLAY			DATA BASE			REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY	
			R			
1. Display title	REFUELING MISSION SCHEDULE					These properties make up Set 2 of the Refueling Mission Schedule display.
2. Mission number	MSN NO	12 an	X		MSN-NUM	
3. Mission callsign	C/S	15 an	X		C/S	

3.1.2.7.3.2.1.4 Search and Rescue Mission Schedule Display

This display is generated at the request of an operator and is sent to the user station at which the request was initiated. The display presents 10 missions per page with a maximum of two pages. Two sets are required for this display. It may contain information on as many as 12 Search and Rescue Missions. There are no options for time period selection of SAR missions. The SAR missions occurring in this display are ordered by Start of Alert Time for all missions in the SAR Frag/Mission Schedule file at the time the generation request is made. The SAR Frag/Mission Schedule file code used in the data sheets is "S". The request code for the Search and Rescue Mission Schedule Display is "SR".

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

1 SCHED PAGE 1 SET 1

SEARCH AND RESCUE MISSION SCHEDULE

PAGE 1 OF 1 SET 1 OF 2

MSN NO	A/C TYPE	ALERT BASE	ORBIT POINT	ALERT DURATION	ATD	REQ
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX
XXXXXXXXXXXX	XXXXXX	XXXX	XXXXXXXXXXXX	XXXX XXXX	XXXX	XXXXX

+OPTIONS +BUILD MISSION ----- +PRINT

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

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DISPLAY TYPE: SAR Schedule

DISPLAY TYPE: SAR Schedule

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			S				
1. Display title	SEARCH AND RESCUE MISSION SCHEDULE						These properties make up Set 1 of the Search and Rescue Mission Schedule display.
2. Mission number	MSN NO	12 an	X			MSN-NUM	
3. A/C type	A/C TYPE	6 an	X			A/C-TYPE	
4. SAR mission Alert Base	ALERT BASE	4 a	X			ALERT-STA	
5. SAR mission Orbit Point	ORBIT POINT	12 an	X			ORBIT-PT	
6. Alert duration	ALERT DURATION	8 n	X			TIME-1, TIME-2	
7. Actual departure time	ATD	4 n	X			TIME-3	
8. SAR mission Requirement Number	REQ	5 an	X			REQ-NUM	

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1	2	3	4	5	6		
123456789012345678901234567890123456789012345678901234							
1	SCHED PAGE 1 SET 2					1	
2						2	
3						3	
4	SEARCH AND RESCUE MISSION SCHEDULE					4	
5	PAGE 1 OF 1 SET 2 OF 2					5	
6	DOWNED/DIS					6	
7	MSN NO	DESTINATION	EST PIC-UP	ACT PIC-UP	ETR ATR MSN NO	7	
8	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	8
9	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	9
10	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	10
11	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	11
12	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	12
13	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	13
14	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	14
15	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	15
16	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	16
17	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	17
18	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	18
19	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	19
20	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	20
21	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	21
22	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	22
23	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	23
24	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	24
25	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	25
26	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	XXXX XXXX	XXXXXXXXXXXX	26
27						27	
28						28	
29						29	
30						30	
31						31	
32	+OPTIONS +BUILD MISSION ----- +PRINT					32	

123456789012345678901234567890123456789012345678901234

DISPLAY TYPE: SAR Schedule

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			S				
1. Display title	SEARCH AND RESCUE MISSION SCHEDULE						These properties make up Set 2 of the Search and Rescue Mission Schedule display.
2. Mission number	MSN NO	12 an	X			MSN-NUM	
3. Destination of SAR mission	DESTINATION	12 an	X			DEST	
4. Estimated time of interceptor pickup	EST PIC-UP	4 n	X			TIME-6	
5. Actual time of interceptor pickup	ACT PIC-UP	4 n	X			TIME-7	
6. Estimated time of return	ETR	4 n	X			TIME-8	
7. Actual time of return	ATR	4 n	X			TIME-9	
8. Mission number of downed/ distressed A/C	DOWNEED/DIS MSN NO	12 an	X			DIS-DOWN-MSN	

3.1.2.7.3.2.2 Mission Displays

This section identifies the format and content of Mission Displays. These displays contain selected data base information associated with a specific mission. There are two operator actions associated with the generation and presentation of this display type. The first is the "Build Mission" action which includes the number of the desired mission. This action causes the display to be generated and the first page to be presented. Subsequent pages are viewed by changing the page number displayed in the first block. The second action is "MSN" which calls for the last mission display generated as a result of the "Build Mission" action being taken by the same operator. There are four basic display types:

RECCE Mission Display	page 381
Fighter Mission Display	page 398
Refueling Mission Display	page 415
Search and Rescue Mission Display	page 419

3.1.2.7.3.2.2.1 RECCE Mission Display

This display is generated at operator request. It contains selected mission schedule and Frag Order information currently available for a specific mission identified in the operator's request. The following mission types are presented using the format specified in this section. The files from which data is used for the construction of each display are identified.

- | | |
|-----------|--|
| 1. EW | EW Frag Order/Mission Schedule (E) |
| 2. IRECCE | IRECCE Mission Schedule (I) |
| 3. PRECCE | PRECCE Frag Order/Mission Schedule (P) |

This is basically a three page display with the first two pages containing mission profile status and control information. Pages three through six contain information related to requests against which the mission has been scheduled. These last pages are generated on an as-required basis. The total number of pages available for display is included in the display title.

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 MSN PAGE 1
2
3
4 MISSION NO XXXXXXXXXXXX
5 PAGE 1 OF 6
6
7 C/S A/C NO TYPE RECALL STATUS
8 XXXXXXXXXXXXXXXX XX XXXXX XXXXXXXXXX X
9 SCHED ACTUAL
10 ROUTE TIME TIME
11 DEP BASE XXXX XXXX
12 PRE REFUEL X XXXX
13 RENDEZVOUS XXXXXXXXXXXX XXXX
14 INGRESS OFFSET PT XXX XXXX
15 INGRESS POINT XX XXXX
16 REQ-1 OR ORBIT PT XXXXXXXXXXXX XXXX XXXX
17 REQ-2 XXXXXX XXXX
18 REQ-3 XXXXXX XXXX
19 REQ-4 XXXXXX XXXX
20 EGRESS POINT XX XXXX
21 EGRESS OFFSET PT XXX XXXX
22 POST REFUEL X XXXX XXXX
23 RECOVERY BASE XXXX XXXX
24
25 ABN ABORTED NOT RETURNED
26 XX XX XX
27
28 REMARKS-1 <XX>
29 REMARKS-2 <XX>
30
31
32 +OPTIONS +PRINT

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: RECCE

DISPLAY TYPE: RECORD

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	E		
1. Display Title	MISSION NO	12 an					
2. Mission Callsign	C/S	15 an	X	X	X	C/S	
3. Number of A/C	A/C No	2 n	X	X	X	SORT	
4. A/C Type	TYPE	6 an	X	X	X	A/C-TYPE	
5. Mission Recall Word	RECALL	10 a	X		X	RECALL	
6. Mission Status	STATUS	1 a	X	X	X	STATUS	
7. Departure Base	DEP BASE	4 a	X	X	X	DEP-BASE	
8. Scheduled Departure Time		4 n	X			TIME-20	
		4 n			X	TIME-10	
		4 n		X		TIME-2	

DISPLAY TYPE: RECCE (Cont'd)

DISPATCH FILE: REC'D (CONT 1)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
9. Actual Departure Time		4 n	X			TIME-21 TIME-3 TIME-11		
10. Prestrike Refuel Area	PRE REFUEL	1 n	X		X	PRE-FUEL-AR	Only the first letter of the property value is used.	
11. Prestrike Refuel Time Schedule /Actual		4 n	X		X	TIME-18/TIME-33 TIME-8/TIME-17		
12. Rendezvous Point	RENDEZVOUS	12 an	X		X	REND-POINT		
13. Scheduled Rendezvous Time		4 n	X		X	TIME-13 TIME-1		
14. Ingress Offset Point	INGRESS OFFSET PT	3 an	X		X	OFFSET-IN-CD		
15. Schedule Ingress Offset Point Time		4 n	X		X	TIME-14 TIME-2		

DISPLAY TYPE: RECCE (Cont'd)

DISPLAY				DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY			
			P	I	E				
16. Ingress Point	INGRESS POINT	2 a	X			X	INGRESS-CD		
17. Scheduled Ingress Point Time		4 n	X				TIME-15		
						X	TIME-3		
18. Request #1 or Orbit Point	REQ-1 OR ORBIT PT	12 an	X				REQ-NUM-1		
				X			REQ-NUM		
					X		ORBIT-PT		
19. Scheduled Time at Req #1 or Orbit Point		4 n	X				TIME-23		
				X			TIME-5		
					X		TIME-13		
20. Actual Time over Req #1 or at Orbit Point		4 n	X				TIME-24		
					X		TIME-14		
				X			TIME-6		
21. Request #2	REQ-2	7 an	X				REQ-NUM-2		
22. Scheduled Time Req #2		4 n	X				TIME-25		

DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	E		
23. Actual Time Req #2		4 n	X			TIME-26	
24. Request #3	REQ-3	7 an	X			REQ-NUM-3	
25. Scheduled Time Req #3		4 n	X			TIME-27	
26. Actual Time Req #3		4 n	X			TIME-28	
27. Request #4	REQ-4	7 an	X			REQ-NUM-4	
28. Scheduled Time Req #4		4 n	X			TIME-29	
29. Actual Time Req #4		4 n	X			TIME-30	
30. Egress Point	EGRESS POINT	2 a	X		X	EGRESS-CD	

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DISPLAY TYPE: RECCE (Cont'd)

DISPLAY				DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY			
			P	I	E				
31. Scheduled Egress Point Time		4 n	X				TIME-17 TIME-6		
32. Egress Offset Point	EGRESS OFFSET PT	3 an	X			X	OFFSET-EG-CD		
33. Scheduled Time at Egress Offset Point		4 n	X			X	TIME-16 TIME-7		
34. Poststrike Refuel Area	POST REFUEL	1 a	X			X	POST-FUEL-AR		
35. Post-Strike Refuel Time Schedule/Actual		4 n	X			X	TIME-19/TIME-34 TIME-9/TIME-18		
36. Recovery Base	RECOVERY BASE	4 a	X			X	RECOV-BASE		

DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	E		
37. Schedule Time to Return		4 n	X			TIME-31	
				X		TIME-7	
					X	TIME-15	
38. Actual Time of Return		4 n	X			TIME-32	
				X		TIME-8	
					X	TIME-16	
39. Number of A/C Airborne	ABN	2 n	X	X		A/C-A/B	
40. Number of A/C Aborted	ABORTED	2 n	X	X		ABORT-A/C	
41. Number of A/C Not Returned	NOT RETURNED	2 n	X	X		A/C-NO-RET	
42. Mission Frag Order Remarks	REMARKS-1	50 an	X		X	REMARKS-1	
				X	X	REMARKS	
43. Mission Progress Remarks	REMARKS-2	50 an	X		X	REMARKS-2	

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 MSN PAGE 2 1
2 2
3 3
4 MISSION NO XXXXXXXXXXXX 4
5 PAGE 2 OF 6 5
6 6
7 CONTROL AGENCY FREQ 7
8 XXXXXXXXXXXXXXXX XXXXX 8
9 9
10 ABORT 10
11 LDG TIME BASE REASON 11
12 XXXX XXXX XXXXX 12
13 13
14 A/C NOT RETURNED 14
15 NO C/S REASON LOCATION 15
16 XX XXXXXXXXXXXXXXXX XXXXX XXXXXXXXXXXX 16
17 17
18 REFUELING 18
19 MSN NO C/S FREQ AREA REQ ACTUAL 19
20 PRE XXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX X XXXXX XXXXX 20
21 POST XXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX X XXXXX XXXXX 21
22 22
23 SUP MSN ORBIT PT ORBIT TIME 23
24 XXXXXXXXXXXX XXXXXXXXXXXX XXXX TO XXXX 24
25 XXXXXXXXXXXX 25
26 XXXXXXXXXXXX 26
27 XXXXXXXXXXXX REPLACES MSN NO 27
28 XXXXXXXXXXXX XXXXXXXXXXXX 28
29 29
30 30
31 31
32 +OPTIONS +PRINT 32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: RECCE

DISPLAY TYPE: RECCE

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
1. Display Title	MISSION NO	12 an						
2. Control Agency	CONTROL AGENCY	15 an	X		X	CTRL-AGENCY		
3. Control Agency Frequency	FREQ	5 an	X		X	CTRL-FREQ		
4. Landing Time of Aborted A/C	ABORT LDG TIME	4 n	X			TIME-22		
				X		TIME-4		
					X	TIME-12		
5. Location of Aborted A/C	BASE	4 n	X	X	X	ABORT-LOC		
6. Reason for Abort	REASON	5 a	X	X	X	ABORT-REA		
7. A/C Not Returned Number and Callsign	A/C NOT RETURNED NO C/S	2 n 15 an	X	X	X	A/C-NO-RET		
			X	X	X	NO-RET-C/S		
8. Reason for A/C Not Returning	REASON	5 a	X	X	X	REA-NO-RET		

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DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	E		
9. Location of Not Returned A/C	LOCATION	12 an	X	X	X	LOC-DOWN	
10. Prestrike Refueling Mission Number	MSN NO	12 an	X		X	PRE-FUEL-MS	
11. Prestrike Refueling Mission Callsign	C/S	15 an	X		X	PRE-FUEL-TK	
12. Prestrike Refueling Frequency	FREQ	5 an	X		X	PRE-FUEL-FR	
13. Prestrike Refueling Area	AREA	1 a	X		X	PRE-FUEL-AR	
14. Prestrike Fuel Required	REQ	5 n	X		X	PRE-FUEL-PD	
15. Prestrike Fuel Actual	ACTUAL	5 n	X		X	PRE-FUEL	

DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
16. Poststrike Refueling Mission Number		12 an	X		X	POST-FUEL-MS		
17. Poststrike Refueling Mission Call- sign		15 an	X		X	POST-FUEL-TK		
18. Poststrike Refueling Frequency		5 an	X		X	POST-FUEL-FR		
19. Poststrike Refueling Area		1 a	X		X	POST-FUEL-AR		
20. Poststrike Fuel Required and Actual		5 n	X		X	POST-FUEL-PD POST-FUEL		
21. Support or Supported Mission Numbers	SUP MSN	12 an	X		X	SUP-MSN-1		
			X		X	SUP-MSN-2		
					X	SUP-MSN-3		
					X	SUP-MSN-4		
					X	SUP-MSN-5		

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DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
22. Orbit Point for EW Missions	ORBIT PT	12 an			X	ORBIT-PT		
23. Orbit Time	ORBIT TIME	8 n			X	TIME-4, TIME-5		
24. Deleted Mission Number	REPLACES MSN NO	12 an	X			MSN-DELETED		

1 2 3 4 5 6
12345678901234567890123456789012345678901234

1	MSN PAGE 3	1
2		2
3		3
4	MISSION NO XXXXXXXXXXXX	4
5		5
6		6
7	A/C	7
8	C/S NO TYPE NO OF REQ	8
9	XXXXXXXXXXXXXXXXXX XX XXXXXX XX	9
10	REQ-1 TOT P TGT NO TGT CATEGORY	10
11	XXXXXXXX XXXX X XXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	11
12		12
13	TGT LOC AREA SPEC EEI	13
14	A XXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX	14
15	B XXXXXXXXXXXX	15
16	C XXXXXXXXXXXX RECCE TYPE PHOTO TYPE	16
17	D XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	17
18	E XXXXXXXXXXXX	18
19	F XXXXXXXXXXXX	19
20		20
21	FILM TYPE MAP CHART	21
22	XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	22
23		23
24	SCALE PRODUCTS NO OF COPIES	24
25	XXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXX	25
26		26
27	DELIVERY TIME	27
28	XXXXXXXXXXXXXXXXXXXXX	28
29	SPECIAL INSTRUCTIONS	29
30	XXX	30
31		31
32	+OPTIONS +PRINT	32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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DISPLAY TYPE: RECCE

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
1. Display Title	MISSION NO	12 an					Items 5-21 are Request dependent and are presented here for Request #1.	
2. Mission Call-Sign	C/S	15 an	X	X	X	C/S	Successive pages, as required, will contain data for Requests 2-4. Items 1-4 are standard for Requests 1-4.	
3. Number of Aircraft	A/C NO	2 n	X	X	X	SORT		
4. A/C Type	TYPE	6 an	X	X	X	A/C-TYPE		
5. Number of Requests	NO OF REQ	2 n	X			NUM-REQ		
6. RECCE REQUEST #1	REQ-1	7 an		X		REQ-NUM		
			X			REQ-NUM-1		
7. Time Over Target-1	TOT	4 n	X			TIME-1		
8. Request #1 Priority	P	1 n	X			REQ-PRI-1		
9. Target Number	TGT NO	4 an	X			TGT-NUM-1		

DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
10. Target Category	TGT CATEGORY	34 an	X				TGT-CAT-1	
11. Target Location	TGT LOC	12 an	X				A TGT-LOC-A-1	
			X				B TGT-LOC-B-1	
			X				C TGT-LOC-C-1	
			X				D TGT-LOC-D-1	
			X				E TGT-LOC-E-1	
			X				F TGT-LOC-F-1	
						X	X	
			X	X	X	X	TGT-LOC-B	
			X	X	X	X	TGT-LOC-C	
			X	X	X	X	TGT-LOC-D	
			X	X	X	X	TGT-LOC-E	
			X	X	X	X	TGT-LOC-F	
12. Target Area	AREA	15 an	X				AREA-1	
				X	X		AREA	
13. Special Elements of Essential Information	SPEC EEI	25 an	X				SPEC-EEI-1	
14. RECCE Type	RECCE TYPE	23 an	X				TYPE-RECCE-1	
				X			TYPE-RECCE	

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DISPLAY TYPE: RECCE (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	E			
15. Type of Photography	PHOTO TYPE	17 an	X				TYPE-PHOTO-1	
16. Film Type	FILM TYPE	20 an	X				TYPE-FILM-1	
17. Map or Chart Reference	MAP CHART	35 an	X				MAP-CHART-1	
18. Scale Required	SCALE	20 an	X				SCALE-1	
19. Required Products	PRODUCTS	14 an	X				PROD-1	
20. Number of Copies Required	NO OF COPIES	8 an	X				NUM-COPIES-1	
21. Delivery Time Required	DELIVERY TIME	21 an	X				DELV-TIME-1	
22. Special Instructions	SPECIAL INSTRUCTIONS	50 an	X				SPEC-INSTR-1	

3.1.2.7.3.2.2 Fighter Mission Display

This display is generated at the request of an operator. It contains selected mission schedule and frag order information related to the mission. A single format is provided for all fighter missions and appropriate data values are stored in the display when such values have been specified for the mission type requested. The display is made up of three pages of display data. The first two pages contain mission profile, status and control information.

Page three of the display contains information related to the Request or Target against which a scheduled mission has been committed. Page three of the display is not required for Escort or CAP type missions.

The files used in the construction of this display are:

1. ICAS Mission Schedule (I) - used for ICAS missions only.
2. Preplanned Fighter Frag Order/Mission Schedule (P) - used for all types of fighter missions except ICAS.

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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 MSN PAGE 1 1
2 2
3 3
4 MISSION NO XXXXXXXXXXXX 4
5 PAGE 1 OF 3 5
6 A/C 6
7 C/S NO TYPE RECALL STATUS 7
8 XXXXXXXXXXXX XX XXXXX XXXXXXXXXXXX X 8
9 SCHED ACTUAL 9
10 ROUTE TIME TIME 10
11 DEP BASE XXXX XXXX 11
12 PRE REFUEL X XXXX XXXX 12
13 RENDEZVOUS PT XXXXXXXXXXXX XXXX 13
14 INGRESS OFFSET PT XXX XXXX 14
15 INGRESS POINT XX XXXX 15
16 REQ-1/TGT/CAP PT XXXXXXXXXXXX XXXX XXXX 16
17 EGRESS POINT XX XXXX 17
18 EGRESS OFFSET PT XXX XXXX 18
19 POST REFUEL X XXXX XXXX 19
20 RECOVERY BASE XXXX XXXX XXXX 20
21 21
22 22
23 23
24 24
25 ABN ABORTED NOT RETURNED 25
26 XX XX XX 26
27 27
28 REMARKS-1 XXX 28
29 REMARKS-2 XXX 29
30 30
31 31
32 +OPTIONS +PRINT 32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: Fighter

DISPLAY TYPE: Fighter

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	-		
1. Display Title	MISSION NO	12 an	-	-	-		The mission number appearing in this field is taken from the "Build Action" generating the display.
2. Mission Callsign	C/S	15 an	X	X		C/S	
3. Number of Aircraft	A/C NO	2 n	X	X		SORT	
4. Type of Aircraft	TYPE	6 an	X	X		A/C-TYPE	
5. Mission Recall Word	RECALL	10 a	X			RECALL	
6. Mission Status	STATUS	1 a	X	X		STATUS	
7. Departure Base	DEP BASE	4 a	X			DEP-BASE	

DISPLAY TYPE: Fighter (Cont'd)

DISPATCH UNIT: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	-		
8. Scheduled Departure Time		4 n	X			TIME-11 TIME-1	
9. Actual Time of Departure		4 n	X			TIME-12 TIME-2	
10. Pre-Strike Refuel Area	PRE REFUEL	1 a	X			PRE-FUEL-AR	Only the first letter of the refuel area identifier is used.
11. Pre-Strike Refuel Time Schedule/Actual		4 n	X			TIME-9/TIME-18	
12. Rendezvous Point	RENDEZVOUS PT	12 an	X			REND-POINT	
13. Scheduled Rendezvous Point Time		4 n	X			TIME-2	
14. Ingress Offset Point		3 an	X			OFFSET-IN-CD	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I	-		
15. Scheduled Time at Ingress Offset Point		4 n	X			TIME-3	
16. Ingress Point	INGRESS POINT	2 a	X			INGRESS-CD	
17. Scheduled Time at Ingress Point		4 n	X			TIME-4	
18. PCAS Request Number, Target Number or CAP Point	REQ-1/TGT/CAP PT	5 an	X	X		REQ-NUM	Used for PCAS and ICAS Missions
		4 an	X			TGT-NUM	Used for IN/CA Missions
		12 an	X			CAP-POINT	Lat/Long used for CAP Missions
19. Scheduled TOT or Time at CAP Point		4 n	X			TIME-14	
				X		TIME-4	
			X			TIME-5	
20. Actual TOT		4 n	X			TIME-15	For PCAS and INT/CA only
				X		TIME-5	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	-			
21. Egress Point	EGRESS POINT	2 a	X			EGRESS-CD		
22. Scheduled Egress Point Time		4 n	X			TIME-8		
23. Egress Offset Point	EGRESS OFFSET PT	3 an	X			OFFSET-EG-CD		
24. Scheduled Egress Offset Point Time		4 n	X			TIME-7		
25. Post-Strike Refuel Area	POST REFUEL	1 a	X			POST-FUEL-AR	Only the first letter of this property is used.	
26. Post-Strike Refuel Time Schedule/Actual		4 n	X			TIME-10/TIME-19		
27. Recovery Base	RECOVERY BASE	4 a	X	X		RECOV-BASE		

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I	-			
28. Estimated Time of Return to Recovery Base		4 n	X			TIME-16		
				X		TIME-6		
29. Actual Time of Return		4 n	X			TIME-17		
				X		TIME-7		
30. Number of A/C Airborne	ABN	2 n	X	X		A/C-A/B		
31. Number of A/C Aborted	ABORTED	2 n	X	X		ABORT-A/C		
32. Number of A/C Not Returned	NOT RETURNED	2 n	X	X		A/C-NO-RET		
33. Frag Order Mission Remarks	REMARKS-1	50 an	X			REMARKS-1		
				X		REMARKS		
34. Mission Progress Remarks	REMARKS-2	50 an	X			REMARKS-2		

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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1 MSN PAGE 2 1
2
3
4 MISSION NO XXXXXXXXXXXX 4
5 PAGE 2 OF 3 5
6
7 CONTROL AGENCY FREQ ORD TGT FAC FREQ 6
8 XXXXXXXXXXXXXXXX XXXXX XXXX XXXXX XXXXXXXXXXXXXXXX XXXXX/XXXXX 7
9 XXXX 8
10 ABORT 9
11 LDG TIME BASE REASON 10
12 XXXX XXXX XXXXX 11
13
14 A/C NOT RETURNED 12
15 NO C/S REASON LOCATION 13
16 XX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX 14
17
18 REFUELING 15
19 MSN NO C/S FREQ AREA REQ ACTUAL 16
20 PRE XXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX X XXXXX XXXXX 17
21 POST XXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX X XXXXX XXXXX 18
22
23 SUP MSN CAP PT CAP TIME 19
24 XXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXX TO XXXX 20
25 XXXXXXXXXXXXX 21
26 XXXXXXXXXXXXX 22
27 XXXXXXXXXXXXX REPLACES MSN NO 23
28 XXXXXXXXXXXXX XXXXXXXXXXXXXXXX 24
29
30 RESULTS XXXXXXXXXXXXXXXXXXXXXXXX 25
31
32 +OPTIONS +PRINT 26

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I				
1. Display Title	MISSION NO	12 an						
2. Control Agency	CONTROL AGENCY	15 an	X				CTRL-AGENCY	
3. Control Agency Frequency	FREQ	5 an	X				CTRL-FREQ	
4. Ordnance Codes 1 and 2	ORD	4 an	X				ORD-1, ORD-2	
				X			ORD	
5. Air Request or Target Number	REQ/TGT	5 an	X	X			REQ-NUM	P or ICAS Missions
		4 an	X				TGT-NUM	CA/IN Missions
6. FAC Callsign	FAC	15 an	X				FAC-C/S	
				X			FIN-CTR-C/S	
7. FAC Frequencies	FREQ	11 an	X				FAC-FREQ	
				X			FIN-CTR-FREQ	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I			
8. Landing Time of Aborted A/C	ABORT LDG TIME	4 n	X			TIME-13 TIME-3	
9. Abort Base	BASE	4 a	X	X		ABORT-LOC	
10. Abort Reason	REASON	5 a	X	X		ABORT-REA	
11. Number of A/C not Returned	NO	2 n	X	X		A/C-NO-RET	
12. Callsign of A/C Not Returned	C/S	15 an	X	X		NO-RET-CS	
13. Reason for Not Returned A/C	REASON	15 a	X	X		REA-NO-RET	
14. Location of A/C	LOCATION	12 a	X	X		LOC-DOWN	
15. Prestrike Refueling Tanker Mission Number	MSN NO	12 an	X			PRE-FUEL-MS	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
16. Prestrike Refueling Tanker Callsign	C/S	15 an	X		PRE-FUEL-TK		
17. Prestrike Refueling Frequency	FREQ	5 an	X		PRE-FUEL-FR		
18. Prestrike Refueling Area	AREA	1 a	X		PRE-FUEL-AR		
19. Prestrike Refueling Requirements	REQ	5 n	X		PRE-FUEL-PD		
20. Prestrike Refueling Actual	ACTUAL	5 n	X		PRE-FUEL		
21. Poststrike Refueling Tanker Mission Number		12 an	X		POST-FUEL-MS		

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DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I			
22. Poststrike Refueling Tanker Callsign		15 an	X			POST-FUEL-TK	
23. Poststrike Refueling Frequency		5 an	X			POST-FUEL-FR	
24. Poststrike Refueling Area		1 a	X			POST-FUEL-AR	
25. Poststrike Refueling Requirement.		5 n	X			POST-FUEL-PD	
26. Poststrike Refueling Actual		5 n	X			POST-FUEL	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
27. Support or Supported Mission Numbers	SUP MSN	12 an	X		SUP-MSN-1 SUP-MSN-2 SUP-MSN-3 SUP-MSN-4 SUP-MSN-5		
28. CAP Point	CAP PT	12 an	X		CAP-POINT		
29. CAP Time	CAP TIME	8 an	X		TIME-5, TIME-6		
30. Deleted Mission Number	REPLACES MSN NO	12 an	X		MSN-DELETED		
31. Mission Results	RESULTS	25 an	X	X	MSN-RESULT		

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```
123456789012345678901234567890123456789012345678901234
1 MSN PAGE 3 1
2 2
3 3
4 MISSION NO XXXXXXXXXXXX 4
5 PAGE 3 OF 3 5
6 A/C 6
7 C/S NO TYPE 7
8 XXXXXXXXXXXXXXXX KX XXXX 8
9 9
10 REQ NO PRI TGT DESCRIPTION TOT 10
11 XXXXX X XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX XXX/XXXX 11
12 12
13 TGT NO PRI TGT LOCATION 13
14 XXXX X A XXXXXXXXXXXX B XXXXXXXXXXXX C XXXXXXXXXXXX 14
15 D XXXXXXXXXXXX E XXXXXXXXXXXX F XXXXXXXXXXXX 15
16 16
17 AREA 17
18 XXXXXXXXXXXXXXXX 18
19 19
20 ALT TGT PRI LOCATION DESCRIPTION 20
21 1 XXXX X XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 21
22 2 XXXX X XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX 22
23 23
24 24
25 25
26 26
27 27
28 28
29 29
30 30
31 31
32 +OPTIONS +PRINT 32
123456789012345678901234567890123456789012345678901234
```

DISPLAY TYPE: Fighter

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			P	I			
1. Display Title	MISSION NO	12 an					
2. Mission Callsign	C/S	15 an	X	X		C/S	
3. Number of A/C	A/C NO	2 n	X	X		SORT	
4. A/C Type	TYPE	6 an	X	X		A/C-TYPE	
5. CAS Request Number	REQ NO	5 an	X	X		REQ-NUM	
6. Request Priority	PRI	1 n	X			REQ-PRI	
				X		PRI	
7. Target Description	TGT DESCRIPTION	34 an	X			TGT-DESCRIP	
8. Time Over Target	TOT	4 n	X			TIME-1	
				X		TIME-4	
9. Target Number	TGT NO	4 an	X			TGT-NUM	

DISPLAY TYPE: Fighter (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
10. Target Priority	PRI	1 n	X		TGT-PRI		
11. Target Location a thru f	TGT LOCATION A,B,C, D,E,F	12 an	X	X	TGT-LOC-A TGT-LOC-B TGT-LOC-C TGT-LOC-D TGT-LOC-E TGT-LOC-F		
12. Area Description	AREA	15 an	X	X	AREA		
13. Alternate Target	ALT TGT	4 an	X		ALT-TGT-1		
		4 an	X		ALT-TGT-2		
14. Alternate Target Priority	PRI	1 n	X		ALT-TGT-1-PR		
		1 n	X		ALT-TGT-2-PR		
15. Alternate Target Location	LOCATION	12 an	X		ALT-TGT-1-LO		
		12 an	X		ALT-TGT-2-LO		

DISPLAY TYPE: Fighter (Cont'd)

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DISPLAY TYPE: Fighter (Cont'd)						
DISPLAY			DATA BASE			
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY	REMARKS
			P	I		
16. Alternate Target Description	DESCRIPTION	34 an	X		ALT-TGT-1-DE	
		34 an	X		ALT-TGT-2-DE	

3.1.2.7.3.2.2.3 Refueling Mission Display

This display is generated at the request of an operator. It contains the complete schedule information that exists in the Refueling Mission Schedule file for the mission specified in the request action. The display is single paged and all data related to the mission is contained in a single display block. All data appearing in the display is presented exactly as the data is specified in the Air Refueling Mission Schedule File (R) with a single exception. This exception is the conversion of the block number assigned to a mission for refueling to a clock time that appears in the display in the columns labeled SCHED TIME. The conversion process is accomplished as follows:

$$T_R = T_{os} + 5 (\text{BLOCK\#} - 1)$$

where: T_R = Scheduled Refueling time for mission

T_{os} = On Station Time for tanker

BLOCK# = The block number (1-24) assigned to a mission
to be refueled

This value is presented in the display as the scheduled refueling time for the mission assigned. Since a mission can be assigned more than one block, it is possible for it to appear several times in the list of time assignments.

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123456789012345678901234567890123456789012345678901234

```
1 MSN
2
3
4 MISSION NO XXXXXXXXXXXX
5
6 REFUEL UNSCHED ON STA OFF
7 C/S FREQ FUEL FUEL SCHED ACT STA
8 XXXXXXXXXXXXXXXX XXXX XXXXX XXXXXX XXXX XXXX XXXX
9
10 SCHED SCHED
11 TIME MSN NO TIME MSN NO MSN NO FUEL
12 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
13 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
14 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
15 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
16 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
17 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
18 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
19 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
20 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
21 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
22 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
23 XXXX XXXXXXXXXXXXXXXX XXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXX
24
25
26
27
28
29
30
31 +OPTIONS +PRINT
32
```

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

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DISPLAY TYPE: Refueling

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			R				
1. Display title	MISSION NO	12 an					
2. Mission call-sign	C/S	15 an	X			C/S	
3. Refueling frequency	REFUEL FREQ	5 n	X			REFUEL-FREQ	
4. Total fuel	FUEL	6 n	X			TOTAL-FUEL	Total fuel on tanker in 100 lbs units.
5. Unscheduled fuel	UNSCHED FUEL	6 n	X			UNSCHED-FUEL	
6. Scheduled on Station time	ON STATION SCHED	4 n	X			TIME-1	
7. Actual on Station time	ACT	4 n	X			TIME-2	
8. Scheduled off station time	OFF STA	4 n	X			TIME-3	
9. Time assigned to refueling block 1-24	SCHED TIME	4 n					The times displayed in this field are computed from the scheduled time on station for the Tanker. Twenty-four refueling time blocks are identified in the display.

DISPLAY TYPE: Refueling

DISPLAY TYPE: Refueling

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			R				
10. Scheduled refueling msn sortie number	MSNc NO	12 an	X			5-MIN-01 thru 5-MIN-24	
11. Mission number of mission scheduled for refueling	MSN NO	12 an	X			SUP-MSN-01 thru SUP-MSN-10	
12. Total fuel required for each mission number	FUEL	5 n	X			SUP-FUEL-01 thru SUP-FUEL-10	

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3.1.2.7.3.2.2.4 Search and Rescue Mission Display

This display is generated at the request of an operator and it contains selected information related to a search and rescue mission contained in the SAR Frag Order/Mission Schedule File (S). The data contained in this file is converted to the format specified and sent to the requesting user station.

	1	2	3	4	5	6
1	1234	5678901234	5678901234	5678901234	5678901234	5678901234
2	MSN					
3						
4	SEARCH AND RESCUE MISSION NO XXXXXXXXXXXXX					
5						
6						
7	C/S	A/C TYPE	ALERT TIME	BASE	ORBIT POINT	
8	XXXXXXXXXXXXXXXXXX	XXXXXX	XXXX XXXX	XXXX	XXXXXXXXXXXXXXXXXX	
9						
10						
11	CONTROL AGENCY	FREQ	EMER MSN COORDINATOR	COORD		
12	XXXXXXXXXXXXXXXXXX	XXXXX	FREQ C/S	FREQ		
13	XXXXXXXXXXXXXXXXXX	XXXXX	XXXXX XXXXXXXXXXXXXXXXX	XXXXX		
14	REMARKS-1 XXX					
15						
16	REMARKS-2 XXX					
17						
18	ATD	ABORT	ABORT LOC	ABORT REA	REQ NO	DIS/DOWNED MSN
19	XXXX X		XXXX	XXXXX	XXXXX	XXXXXXXXXXXXXX
20						
21	DESTINATION	SAR LOCATION		SAR TIME	EST INT	ACT INT
22	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX		XXXX	XXXX	XXXX
23						
24	ETR	ATR	A/C NOT RETURNED		LOCATION	
25	XXXX	XXXX	XXXXXXXXXXXXXXXXXX		XXXXXXXXXXXXXX	
26						
27						
28						
29						
30						
31						
32	+OPTIONS			+PRINT		

123456789012345678901234567890123456789012345678901234

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DISPLAY TYPE: Search and Rescue Mission Displayed

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			S					
1. Display title	SEARCH AND RESCUE MISSION NO	12 an						
2. Callsign	C/S	15 an	X				C/S	
3. Aircraft type	A/C TYPE	6 an	X				A/C-TYPE	
4. Alert time	ALERT TIME	4 n	X				TIME-1	Start Alert Time
		4 n	X				TIME-2	End Alert Time
5. Alert Station	BASE	4 a	X				ALERT-STA	
6. Orbit point	ORBIT POINT	12 an	X				ORBIT-PT	
7. Control agency	CONTROL AGENCY	15 an	X				CTRL-AGENCY	
8. Control frequency	FREQ	5 n	X				CTRL-FREQ	
9. Emergency frequency	EMER FREQ	5 n	X				EMER-FREQ	
10. Mission coordinator	MSN COORDINATOR C/S	15 an	X				MSN-COORD	Callsign of Mission Coordinator.

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DISPLAY TYPE: Search and Rescue Mission Displayed (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			8				
11. Coordinator Frequency	COORD FREQ	5 n	X			COORD-FREQ	
12. Remarks-1	REMARKS-1	50 an	X			REMARKS-1	
13. Remarks-2	REMARKS-2	50 an	X			REMARKS-2	
14. Actual time of departure	ATD	4 n	X			TIME-3	
15. Aircraft abort indicator	ABORT	1 a	X			ABORT-A/C	
16. Abort location	ABORT LOC	4 an	X			ABORT-LOC	Base designator
17. Abort Reason	ABORT REA	5 an	X			ABORT-REA	
18. SAR Requirement number	REQ NO	5 an	X			REQ-NUM	
19. A/C in Distress or Down Mission number	DIS/DOWNED MSN	12 an	X			DIS-DOWN-MSN	
20. Destination	DESTINATION	12 an	X			DEST	
21. SAR Mission position	SAR LOCATION	12 an	X			SAR-LOC	

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DISPLAY TYPE: Search and Rescue Mission Displayed (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			S				
22. SAR Mission time	SAR TIME	4 n	X			TIME-5	Time at which MSN was at Reported Position.
23. Estimated intercept pickup time	EST INT	4 n	X			TIME-6	
24. Actual intercept pickup time	ACT INT	4 n	X			TIME-7	
25. Estimated time to return	ETR	4 n	X			TIME-8	
26. Actual time of return	ATR	4 n	X			TIME-9	
30. Aircraft not returned	A/C NOT RETURNED	15 an	X			NO-RET-C/S	Callsign of aircraft not returned
31. Location	LOCATION	12 an	X			LOC-DOWN	Location of downed aircraft

3.1.2.7.3.3 Processing Requirements

3.1.2.7.3.3.1 Mission Schedule Display Generation

At the request of an operator, a Mission Schedule display for Mission Type, organized by type of time and satisfying the specified time criteria is generated and stored for use by the requesting user station. Based on the type of mission specified in the Build Schedule request, the data base properties identified as required in the mission schedule display are retrieved for those missions included in the specified schedule type and sorted according to the type of time specified.

The following table identifies the types/subtypes of missions that are included in each schedule type. It is necessary to insure that all missions of the type/subtype specified for a schedule type are included in the mission schedule display generated for a specific request.

In searching the Frag Order/Mission Schedule files for the types of missions specified, a mission is included in the mission schedule display requested if the mission qualifies by type and the departure time or time over target for the mission falls within the time interval specified in the request. When all missions to be included in a mission schedule display have been identified, the missions are ordered for appearance in the display by the earliest time appearing first and proceeding in a time ordered sequence to the mission with the latest scheduled ETD or ETOT depending on which was specified. When all mission display data has been retrieved for missions to be included in the mission display being generated, the schedule data is converted to display format, stored and the first page transferred to the display screen at the user station from which the schedule generation was requested.

3.1.2.7.3.3.2 Mission Display Generation

A request for the generation of a Mission Display requires that selected Frag Order and Mission Schedule information from the data base for the mission specified in the request be converted to the display format specified, stored and the first page transferred to the display screen.

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3.1.2.7.4 Mission Adjustment Summary and Information Displays

These displays present data to the operator as a direct result of operator actions taken to initiate the processes specified in the Mission Adjustment Function. These displays include:

	<u>Page</u>
1. Candidate CAS Requirements	428
2. Candidate RECCE Requirements	431
3. Candidate Target Requirements	434
4. Candidate Fighter Missions	438
5. Candidate RECCE Missions	441
6. Candidate Fighter Mission Schedule	445
7. Candidate RECCE Mission Schedule	450
8. Mission Deleted	457
9. Alerts	460

The first five candidate displays contain one set of information for up to ten candidates per page. The page count is an indication of the maximum number of candidates that have qualified in the selection process. Block one of these displays provides the capability to request the additional pages and examine all of the candidates. The last two candidate displays contain one page of information for up to two candidate missions.

The Mission Deleted display contains one page of information and is presented on the display surface or output on the User Station printer as specified in the Mission Adjustment Function.

The Mission Adjustment Alerts are one line displays which are presented on Block 2 of a display page or output on the User Station printer as specified in the Mission Adjustment Function.

Candidate Requirements and Candidate Missions displays are sorted based on sort keys indicated in the accompanying data sheets.

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3.1.2.7.4.1 Source and Type of Inputs

These displays are generated by the Mission Adjustment Function from information contained in the system data base files. Their source and type of inputs are specified in the Mission Adjustment Function. See Section 3.1.2.4.

3.1.2.7.4.2 Destination and Type of Output

When required by the Mission Adjustment Function, each of the displays is generated and sent to the User Station at which the function was initiated. For each display included in this group a sheet providing detailed format and content information is provided together with an illustration of the required format. The data sheet provides specification of information that may appear in each display including fixed display information such as title and column heading information and variable display information that is produced during the operation of the process.

3.1.2.7.4.2.1 Candidate CAS Requirements Display

This display presents information related to CAS Requirements, the display of which is based on selection criteria established by an operator action. The display presents information on ten candidates per display page and may contain up to three pages of information. The display data sheet contains a File Code of C to designate the Preplanned CAS Request File.

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

1	CRSD PAGE 1	1
2	13 CANDIDATE REQUIREMENTS	2
3		3
4	CANDIDATE CAS REQUIREMENTS	4
5	PAGE 1 OF 2	5
6	REQ A/C TGT TGT	6
7	NO NO TYPE TYPE/TIME ORDN DES LOCATION P I PP	7
8	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	8
9		9
10	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	10
11		11
12	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	12
13		13
14	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	14
15		15
16	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	16
17		17
18	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	18
19		19
20	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	20
21		21
22	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	22
23		23
24	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	24
25		25
26	XXXX XX XXXXXX X XXXX XXXX XXXXX X XXXXXXXXXXXXX X X X	26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DED ACAQ ----- +DED FPAD ----- +PRINT	32

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

DISPLAY TYPE: Candidate CAS Requirements

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			C				
1. Display title	CANDIDATE CAS REQUIREMENTS						
2. CAS Request number	REQ NO	5 an	X		REQ-NUM		
3. Number of aircraft recommended	A/C NO	2 n	X		NUM-A/C		
4. Type of air- craft Recom- mended	TYPE	6 an	X		A/C-TYPE		
5. Type of target	TGT TIME/TYPE TY	1 a	X		TGT-TIME		
6. Time	TIME	4 n	X		TIME-2	Secondary Sort Key	
7. Time		4 n	X		TIME-3		
8. Recommended Ordnance	ORDN	5 an	X		ORD		
9. Target description	TGT DES	1 a	X		TGT		
10. Target location	TGT LOCATION	12 an	X		TGT-LOC-A		
11. Target priority	P	1 n	X		PRI	Primary Sort Key	
12. Request Type	TYPE I PP	1 an, 1 an	X		IMMED and PRE- PLAN		

3.1.2.7.4.2.2 Candidate RECCE Requirements Display

The display is generated by the Mission Adjustment function at the request of an operator. The display is sent to the user station at which the criteria for the selection of RECCE Requirements has been entered. The display contains ten candidates per page and may include up to five pages of information. The display data sheet contains a File Code of R to designate the Preplanned RECCE Request File.

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1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

```
1 CRSD PAGE 1
2 14 CANDIDATE REQUIREMENTS
3
4 CANDIDATE RECCE REQUIREMENTS
5 PAGE 1 OF 2
6
7 REQ NO LTIOV REQ TYPE RECCE TYPE LOCATION CATEGORY P
8 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
9
10 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
11
12 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
13
14 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
15
16 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
17
18 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
19
20 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
21
22 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
23
24 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
25
26 XXXXXXX XXXX X XXXXXXXXXXX XXXXXXXXXXX XXXXXXXXXXX X
27
28
29
30
31
32 +OPTIONS +DED ARSQ ----- +DED RPAD +PRINT
```

1 2 3 4 5 6
123456789012345678901234567890123456789012345678901234

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TM-LX-346/600/01

DISPLAY TYPE: Candidate RECCE Requirement

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY			
			R					
1. Display title	CANDIDATE RECCE REQUIREMENTS							
2. RECCE request number	REQ NO	7 an	X			REQ-NUM		
3. Latest time requested information is of value	LTIOV	4 n	X			TIME-1		Secondary Sort Key
4. Request type	REQ TYPE	1 a	X			TYPE		
5. Type RECCE requested	RECCE TYPE	10 an	X			TYPE-RECCE		Only the first 10 characters are used.
6. Target location	TGT LOCATION	12 an	X			TGT-LOC-A		
7. Target category	TGT CATEGORY	10 an	X			TGT-CAT		Only the first 10 characters are used.
8. Priority assigned to request	P	1 n				PRI		Primary Sort Key

3.1.2.7.4.2.3 Candidate Target Requirements

The display is generated by the Mission Adjustment function in response to an operator request. The display is sent to the user station at which the criteria for target selection were entered. Information identifying ten target candidates per display page is presented. The display may contain up to eight pages of information. The display data sheet contains a File Code of T to designate the Target File.

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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1	CRSD PAGE 1	1
2	13 CANDIDATE REQUIREMENTS	2
3		3
4	CANDIDATE TARGETS REQUIREMENTS	4
5	PAGE 1 OF 2	5
6	A/C ORD CODE SUP REQ TGT	6
7	TGT NO NO TYPE DTOT LTOT 1 2 FTR EW LOCATION P	7
8	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	8
9		9
10	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	10
11		11
12	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	12
13		13
14	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	14
15		15
16	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	16
17		17
18	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	18
19		19
20	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	20
21		21
22	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	22
23		23
24	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	24
25		25
26	XXXX XX XXXXXX XXXX XXXX XXXX XXXX X X XXXXXXXXXXXXX X	26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DBD 16 ---- +DED FPAD ---- +PRINT	32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

DISPLAY TYPE: Candidate Targets Requirements

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY	
			T				
1. Display title	CANDIDATE TARGETS REQUIREMENTS						
2. Target number	TGT NO	4 an	X			TGT-NUM	
3. Number of aircraft	A/C NO	2 n	X			SORT	
4. Type of aircraft	TYPE	6 an	X			A/C-TYPE	
5. Desired time over target	DTOT	4 n	X			TIME-1	Secondary Sort Key
6. Latest time over target	LTOT	4 n	X			TIME-2	
7. Ordnance codes recommended	ORD CODE 1 2	4 an	X			REC-ORD-1	
		4 an	X			REC-ORD-2	
8. Fighter support required	SUP REQ FTR	1 a	X			FTR-SUPP	
9. Electronic Warfare support required	EW	1 a	X			EW-SUPP	

DISPLAY TYPE: Candidate Targets Requirements (Cont'd)

DISPLAY TYPE: Candidate targets requirements (cont.)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			T				
10. Target location	TGT LOCATION	12 an	X		TGT-LOC	Primary Sort Key	
11. Target priority	P	1 n	X		TGT-PRI		

3.1.2.7.4.2.4 Candidate Fighter Missions

This display is generated by the Mission Adjustment function when candidate mission selection criteria are input by the operator. The display is sent to the user station at which the request for candidate mission processing was entered. The display data associated with each mission that qualifies as a candidate mission is presented in one display set. This display contains display information on ten missions per display page and may contain up to seven pages of information. The display data sheet contains the following File Codes: P for the Preplanned Fighter FRAG Order/Mission Schedule File and I for the Immediate CAS FRAG Order File.

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```

      1      2      3      4      5      6
12345678901234567890123456789012345678901234

1 CMSD PAGE 1
2 42 CANDIDATE MISSIONS
3
4      CANDIDATE FIGHTER MISSIONS
5
6      PAGE 1 OF 5
7      A/C      ALERT OR REQ/      ORD CODE
7 MSN NO      NO TYPE      ETD      ETR      TGT NO P 1      2
8 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
9
10 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
11
12 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
13
14 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
15
16 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
17
18 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
19
20 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
21
22 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
23
24 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
25
26 XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXXX X XXXX XXXX
27
28
29
30
31 +OPTIONS      +DED FPAD -----
32
      1      2      3      4      5      6
12345678901234567890123456789012345678901234
```


3.1.2.7.4.2.5 Candidate RECCE Missions

This display is generated by the Mission Adjustment function when candidate mission selection criteria are input by the operator. The display is sent to the user station at which the request for candidate mission processing was entered. The display data associated with each mission that qualifies as a candidate mission is presented in one display set. This display contains display information on ten candidate missions per display page and may contain up to two pages of information. The display data sheet contains the following File Codes: P for the Preplanned RECCE FRAG Order/Mission Schedule File and I for the Immediate RECCE FRAG Order File.

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1 2 3 4 5 6
12345678901234567890123456789012345678901234

1	CMSD PAGE 1	1
2	6 CANDIDATE MISSIONS	2
3		3
4	CANDIDATE RECCE MISSIONS	4
5		5
6	PAGE 1 OF 1	6
7	MSN NO A/C NO TYPE ALERT OR ETD ETR REQ REQ NO-1 P REQ NO-2 P	7
8	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	8
9		9
10	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	10
11		11
12	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	12
13		13
14	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	14
15		15
16	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	16
17		17
18	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	18
19		19
20	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	20
21		21
22	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	22
23		23
24	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	24
25		25
26	XXXXXXXXXXXX XX XXXXXX XXXX XXXX XX XXXXXXXX X XXXXXXXX X	26
27		27
28		28
29		29
30		30
31		31
32	+OPTIONS +DED RPAD ----- +PRINT	32

1 2 3 4 5 6
12345678901234567890123456789012345678901234

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DISPLAY TYPE: Candidate RECCE Missions

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
1. Display title	CANDIDATE RECCE MISSIONS						
2. Mission number	MSN NO	12 an	X		X	MSN-NUM *	LAST-MSN for IRECE
3. Number of air-craft	A/C NO	2 n	X			SORT	
					X		(SORT)-(SORT-SCRAM)
4. Type of air-craft	TYPE	6 an	X		X	A/C-TYPE	
5. Alert or estimated departure time	ALERT OR ETD	4 n	X			TIME-20	ETD (Sort Key)
					X	TIME-1	START ALERT TIME
6. Estimated time of return	ETR	4 n	X			TIME-31	
					X	TIME-2	END ALERT TIME
7. Number of RECCE Request Assgnd to mission	REQ	1 n	X			NUM-REQ	
8. First RECCE request	REQ NO-1	7 an	X			REQ-NUM-1	
9. Priority assigned to REQ NO-1	P	1 n	X			REQ-PRI-1	

Candidate RECCE Missions (Cont'd)

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[illegible]

3.1.2.7.4.2.6 Candidate Fighter Mission Schedule Display

This display is generated by the Mission Adjustment function at the request of an operator. The candidate mission selection process generates the schedule information display for two candidate missions when requested by the operator. This display is sent to the user station at which the candidate mission selection process was initiated. The Candidate Fighter Mission Schedule display is made up of a single page and single data set. The display data sheet contains the following File Codes: P for the Preplanned Fighter FRAG Order/Mission Schedule File and I for the Immediate CAS FRAG Order File.

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12345678901234567890123456789012345678901234

1 CMSD

CANDIDATE FIGHTER MISSION SCHEDULE

MSN NO	A/C	NO	TYPE	ETD	ETR	BASE	1	2
XXXXXXXXXXXX	XX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX
XXXXXXXXXXXX	XX	XXXXXX	XXXX	XXXX	XXXX	XXXX	XXXX	XXXX

TGT /REQ	P	SUP MSN	1	SUP MSN	2
XXXXX	X	XXXXXXXXXXXX		XXXXXXXXXXXX	
XXXXX	X	XXXXXXXXXXXX		XXXXXXXXXXXX	

TGT/REQ NO XXXXX NO OF A/C XX TOT XXXXXXXX

MSN NO	ETD	ETOT	ETR	CURRENT POSITION
XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXXXXXXXX
XXXXXXXXXXXX	XXXX	XXXX	XXXX	XXXXXXXXXXXX

PRE STRIKE REFUELING		POST STRIKE REFUELING	
AREA	TIME LBS	AREA	TIME LBS
X	XXXX XXXXX	X	XXXX XXXXX
X	XXXX XXXXX	X	XXXX XXXXX

+OPTIONS +DED FPAD ----- +PRINT

1 2 3 4 5 5
12345678901234567890123456789012345678901234

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DISPLAY TYPE: CANDIDATE FIGHTER MISSION SCHEDULE

DISPLAY			DATA BASE			REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY	
			F	I		
1. Mission Number	MSN NO	12an	X	X	MSN-NUM *	LAST-MSN for ICAS
2. Number of Aircraft	A/C NO	2n	X		SORT	(SORT)-(SORT-SCRAM)
				X		
3. Type of Aircraft	TYPE	6an	X	X	A/C-TYPE	
4. Alert or Est. time of departure	ALERT or ETD	4n	X		TIME-11	ETD
				X	TIME-1	Start Alert Time
5. Alert or Est. Time to Return	ETR	4n	X		TIME-16	ETR
				X	TIME-2	End Alert Time
6. Departure Base	BASE	4a	X	X	DEP-BASE	
7. Ordnance Code 1	ORD CODE 1	4an	X		ORD-1	
				X	ORD-CODE	
8. Ordnance Code 2	2	4an	X		ORD-2	
9. Target or CAS Request Number	TGT/REQ	4an	X		TGT-NUM	PCAS missions
		5an	X		REQ-NUM	IN/CA missions

DISPLAY TYPE: CANDIDATE FIGHTER MISSION SCHEDULE (Cont'd)

DISPLAY				DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY			
			P	I				
10. Priority Assigned to CAS Request or Target	P	1n	X		TGT-PRI	PCAS missions	IN/CA missions	
			X		REQ-PRI			
11. Mission number of support mission-1	SUP MSN 1	12an	X		SUP-MSN-1			
12. Mission number of support mission-2	SUP MSN 2	12an	X		SUP-MSN-2			
13. Target or CAS Request Number	TGT/REQ NO	5an					This value is obtained from the CFSD input DED.	
14. Number of aircraft required and TOT	NO OF A/C TOT	2n 8an					These values are obtained from the CFSD input DED	
15. Mission Number	MSN NO	12an					These display values are produced by the candidate mission selection process	
16. Estimated Time of departure for selected candidates	ETD	4n						
17. Estimated time over target for selected candidates	ETOT	4n						

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DISPLAY TYPE: CANDIDATE FIGHTER MISSION SCHEDULE (Cont'd)

DISPLAY				DATA BASE			REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
18. Estimated time of return for selected candidate	ETR	4n				These display values are produced by the candidate mission selection process	
19. Present mission positions if airborne (LAT/LONG)	CURRENT POSITION	12an					
20. Prestrike re-fueling area	AREA	1a					
21. Prestrike re-fueling time	TIME	4n					
22. Prestrike fuel required	LBS	5n					
23. Postrike re-fueling area	AREA	1a					
24. Postrike re-fueling time	TIME	4n					
25. Postrike fuel required	LBS	5n					

3.1.2.7.4.2.7 Candidate RECCE Mission Schedule Display

This display is generated by the Mission Adjustment function at the request of an operator. The candidate mission selection process generates the schedule information display for two candidate missions when requested by the operator. This display is sent to the user station at which the candidate mission selection process was initiated. The Candidate RECCE Mission Schedule display is made up of a single page and single data set. The display data sheet contains the following File Codes: P for the Preplanned RECCE FRAG Order/Mission Schedule File and I for the Immediate RECCE FRAG Order File.

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```

1234567890123456789012345678901234567890123456789012345678901234
1  CMSD
2
3
4      CANDIDATE RECCE MISSION SCHEDULE
5
6      A/C      ALERT OR      NO OF
7  MSN NO      NO TYPE  ETD  ETR  BASE REQ
8  XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX X
9  XXXXXXXXXXXX XX XXXXXX XXXX XXXX XXXX X
10
11 REQ-1  P TYPE  REQ-2  P TYPE  REQ-3  P TYPE  REQ-4  P TYPE
12 XXXXXX X X    XXXXXX X X    XXXXXX X X    XXXXXX X X
13 XXXXXX X X    XXXXXX X X    XXXXXX X X    XXXXXX X X
14
15 SUP MSN 1    SUP MSN 2
16 XXXXXXXXXXXX XXXXXXXXXXXX
17 XXXXXXXXXXXX XXXXXXXXXXXX
18
19
20 REQ NO XXXXXX  RECCE TYPE X    NO OF A/C XX  TOT XXXXXXXX
21
22 MSN NO      ETD  ETOT ETR  CURRENT POSITION
23 XXXXXXXXXXXX XXXX XXXX XXXX XXXXXXXXXXXX
24 XXXXXXXXXXXX XXXX XXXX XXXX XXXXXXXXXXXX
25
26 PRE STRIKE REFUELING      POST STRIKE REFUELING
27 AREA TIME  LBS            AREA  TIME  LBS
28 X   XXXX  XXXXX          X   XXXX  XXXXX
29 X   XXXX  XXXXX          X   XXXX  XXXXX
30
31
32 +OPTIONS      +DED RPAD -----+PRINT
1234567890123456789012345678901234567890123456789012345678901234
```


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DISPLAY TYPE: Candidate RECCE Mission Schedule

DISPLAY										DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY								
			P	I										
1. Mission Number	MSN NO	12 an	X	X		MSN-NUM*	LAST-MSN for IRECEE							
2. Number of Aircraft	A/C NO	2 n	X			SORT	(SORT) - (SORT-SCRAM)							
3. Type of Aircraft	TYPE	6 an	X	X		A/C-TYPE								
4. Alert Time or ETD	ALERT OR ETD	4 n	X			TIME-20	ETD							
				X		TIME-1	START OF ALERT							
5. End Alert Time or ETR	ETR	4 n	X			TIME-31	ETR							
				X		TIME-2	END ALERT TIME							
6. Departure Base	BASE	4 a	X	X		DEP-BASE								
7. Number of RECCE Requests Assigned to Mission	NO OF REQ	1 n	X			NUM-REQ								

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DISPLAY TYPE: Candidate RECCE Mission Schedule (Cont'd)

DISPLAY			DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY		
			P	I			
8. Request-1	REQ-1	7 an	X		REQ-NUM-1		
9. Request-1 priority	P	1 n	X		REQ-PRI-1		
10. Type of RECCE for request 1	TYPE	1 a	X		TYPE-RECCE-1		
11. Request-2	REQ-2	7 an	X		REQ-NUM-2		
12. Request-2 priority	P	1 n	X		REQ-PRI-2		
13. Type of RECCE for request 2	TYPE	1 a	X		TYPE-RECCE-2		
14. Request-3	REQ-3	7 an	X		REQ-NUM-3		
15. Request-3 priority	P	1 n	X		REQ-PRI-3		
16. Type of RECCE for request 3	TYPE	1 a	X		TYPE-RECCE-3		
17. Request-4	REQ-4	7	X		REQ-NUM-4		
18. Request-4 priority	P	1 n	X		REQ-PRI-4		

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DISPLAY TYPE: Candidate RECCE Mission Schedule (Cont'd)

DISPLAY			DATA BASE					REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE			PROPERTY		
			P	I				
19. Type of RECCE for request 4	TYPE	1 a	X			TYPE-RECCE-4		
20. Mission number of support mission 1	SUP MSN 1	12 an	X			SUP-MSN-1		
21. Mission number of support mission 2	SUP MSN 2	12 an	X			SUP-MSN-2		
22. RECCE request number	REQ NO	7 an					These display values are contained in the CRSD input DED.	
23. RECCE type specified	RECCE TYPE	1 a						
24. Number of aircraft specified	NO OF A/C	2 n						
25. Time over Target	TOT	8 an						

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DISPLAY TYPE: Candidate RECCE Mission Schedule (Cont'd)

DISPLAY TYPE.

DISPLAY			DATA BASE			REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY	
			P	I		
26. Mission number of selected candidates	MSN NO	12 an				The following display values are produced by the candi- date mission selection process.
27. Estimated time of departure for selected candidates	ETD	4 n				
28. Estimated time over target for selected candidates	ETOT	4 n				
29. Estimated time to return for selected candidates	ETR	4 n				
30. Present mission position if airborne (LAT/LONG)	CURRENT POSITION	12 an				

DISPLAY TYPE: Candidate RECCE Mission Schedule (Cont'd)

Candidate RECCE Mission Schedule (Cont'd)							DATA BASE			REMARKS
DISPLAY		NO. & TYPE OF CHARS.	LABEL	FILE			PROPERTY			
FIELD				P	I					
30. Prestrike refueling area	AREA	1 a								
31. Prestrike refueling time	TIME	4 n								
32. Prestrike fuel required	LBS	5 n								
33. Postrike refueling area	AREA	1 a								
34. Postrike refueling time	TIME	4 n								
35. Postrike fuel required	LBS	5 n								

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3.1.2.7.4.2.8 Mission Deleted Display

This display is generated by the Mission Adjustment function at the completion of mission deletion processing. It is sent to the user station that initiated the mission deletion processing. It is a single page display and identifies a single mission that has been deleted from the system.

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```

      1      2      3      4      5      6
123456789012345678901234567890123456789012345678901234
1
2
3
4      MISSION DELETED
5
6
7      MSN NO      SORTIES      TGT/      REQ NO      SUP MISSIONS
8      XXXXXXXXXXXX      XX      XXXXXXX      XXXXXXXXXX
9
10     XXXXXXX      XXXXXXXXXX
11     XXXXXXX      XXXXXXXXXX
12     XXXXXXX      XXXXXXXXXX
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32 +OPTIONS
      1      2      3      4      5      6
12345678901234567890123456789012345678901234
```

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DISPLAY TYPE: MISSION DELETED

DISPLAY		DATA BASE				REMARKS
FIELD	LABEL	NO. & TYPE OF CHARS.	FILE		PROPERTY	
1. Mission Number	MSN NO	12an			MSN-NUM or LAST-MSN	Same property name in all Frag Order Mission Schedule Files
2. Number of Aircraft	SORTIES	2n			SORT	Same property name in all Frag Order Mission Schedule Files
3. Target or Requirements Number	TGT/REQ NO	4an 5an or 7an			TGT-NUM REQ-NUM REQ-NUM-n	IN/CA missions have one target number, CAS missions have one request number, RECCE mission may have 4 request numbers
4. Support Mission Numbers	SUP MISSIONS	12an			SUP-MSN-1 SUP-MSN-2 SUP-MSN-3 SUP-MSN-4 SUP-MSN-5	EW and CAP missions can support as many as 5 missions ESCORT missions support 1 mission. IN/CA, PRECCE and PCAS missions may be support- ed by 2 missions.

3.1.2.7.4.2.9 Mission Adjustment Alert Displays

This is a group of display messages that are generated by the Mission Adjustment Function to keep the operator informed as to the results of the actions he has taken in the course of Mission Adjustment processing. All alert messages are directed to the user station at which adjustment processing was initiated. These messages appear on Line 2 of the display screen (unless noted below for output on the User Station printer) and are limited to 63 characters in length. Messages routed to the display screen are always presented in Block 2 of a display page.

The following messages have been identified as Mission Adjustment Alert Displays:

1. NO CANDIDATE REQUIREMENTS FOUND; ENTER NEW SELECTION
2. NO CANDIDATE MISSIONS FOUND; ENTER NEW SELECTION
3. REQUIREMENTS NUMBER NOT RECOGNIZED; ENTER NEW VALUE
4. UNIT NUMBER NOT RECOGNIZED; ENTER NEW VALUE
5. DISPERSAL BASE CODE NOT RECOGNIZED; ENTER NEW VALUE
6. A/C TYPE NOT AVAILABLE AT BASE SPECIFIED; ENTER NEW VALUE
7. ORD CODE NOT AVAILABLE FOR A/C TYPE; ENTER NEW VALUE
8. INSUFFICIENT BASE MUNITIONS; SELECT ANOTHER UNIT
9. MISSION NUMBER NOT RECOGNIZED; ENTER NEW VALUE
10. (MSN NO.) PREVIOUSLY DELETED
11. EXCESSIVE REFUELING REQUIRED; SELECT ANOTHER UNIT
12. REFUELING UNAVAILABLE; REPLAN THE MISSION
13. ADJUSTMENT NOT POSSIBLE; SELECT ANOTHER MISSION
14. SAR ASSIGNMENT COMPLETED
15. INGRESS/EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE
16. INGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE
17. EGRESS CODE NOT RECOGNIZED; ENTER NEW VALUE
18. ETD LESS THAN CURRENT TIME; REPLAN THE MISSION
19. FIGHTER SUPPORT REQUIRED
20. EW SUPPORT REQUIRED

- 21. FIGHTER AND EW SUPPORT REQUIRED
- 22. ENTRY NOT AVAILABLE (File ID); PROCESS CONTINUING (Printer)
- 23. ENTRY NOT AVAILABLE (File ID); PROCESS TERMINATING
- 24. ENTRY FULL (File ID, Object); PROCESS CONTINUING (Printer)
- 25. ENTRY FULL (File ID, Object); PROCESS TERMINATING
- 26. ENTRY NOT FOUND (File ID, Object); PROCESS CONTINUING (Printer)
- 27. ENTRY NOT FOUND (File ID, Object, Property); PROCESS CONTINUING (Printer)
- 28. (NO.) CANDIDATE REQUIREMENTS
- 29. (NO.) CANDIDATE MISSIONS
- 30. CANDIDATES DO NOT MEET REQUESTED TOT

The detailed conditions under which each of the messages are generated are described in Section 3.1.2.4.2.16, Mission Adjustment Alerts.

3.1.2.7.4.2.10 Frag Transmission Complete

The Frag Transmission Complete message is generated when a Frag Order has been manually transmitted. It is a single line display appearing in Line 2 of the display screen. A detailed description of when this message is generated appears in Section 3.1.2.5.

3.1.2.7.4.3 Processing

The processing requirements required for the generation of these displays are contained in the specification of the Mission Adjustment Function, Section 3.1.2.4 and the Message Preparation Function, Section 3.1.2.5.

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3.1.2.7.5 Monitoring Alert Displays

This group of displays is addressed to the printer at a user station to which an operational sub-function has been assigned. When specific conditions are detected by the Input Processing or Condition Monitoring functions, the specified message is prepared and sent to the user station as required. In addition to a brief alert message it is sometimes required that the input message in which the alert condition was detected be printed in its entirety. For those defined alert conditions where it is necessary to print an entire input message the message causing the alert is to be printed in the same format that has been established for the manual insertion of the message, i.e., Data Entry Display format. The following table identifies the monitoring alert conditions that have been established for this system. For each condition identified in the table, the contents of the alert message as well as the functional position addressing requirement for the alert message is specified. The four letter input message identifier appears in the remarks column when printing of the message is required as part of the alert condition.

It should be noted that in the discussion that follows references to the Monitoring Alerts File are to be considered descriptive of the functional requirements, but are not restrictive of the implementation techniques to be chosen during program design.

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ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
1	Immediate TAC Air Request	Immediate TAC Air Request	REQ-NUM	ICAS	Total message is printed-ACAS
2	Immediate TAC Air RECCE/Surveillance Request	Immediate TAC Air RECCE/Surveillance Request	REQ-NUM	IREC	Total message is printed-ARSQ
3	ICAS Scramble Report	ICAS Scramble	MSN-NUM	ICAS	Total message is printed-ICSM
4	IREC Scramble Report	IREC Scramble	MSN-NUM	IREC	Total message is printed-IRSM
5	Air Defense Scramble Report	Air Defense Scramble	MSN-NUM	AIRDEF	Total message is printed-ADSM
6	Abort Report	Abort	MSN-NUM	Note 1	An appropriate Mission Display will be presented
7	TACS Facility Status Report	TACS Facility Status Change	FAC	AIRDFF	Total report is printed-TFAS
8	Airbase Status Change	Airbase Status change old status ----- new status -----	BASE	AIRDEF	
9	Change in ETRO for Base	Base ETRO old ----- new -----	BASE	AIRDEF	

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ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
10	Flight Facility Status Change	Facility Status Change name ----- old status ----- new status -----	BASE	AIRDEF	
11	Change in ETR0 for Facility	Facility ETR0 name ---- old ETR0 ---- new ETR0 ----	BASE	AIRDEF	
12	TAC Unit OR 8 Hour Below Minimum	OR 8 Hour Below Minimum Type ----- OR 8 ----- LIMFAC -----	UNIT	Note 2	
13	TAC Unit OR Change from 8 Hour Forecast	OR Different from Forecast Type ----- OR ----- Forecast-----	UNIT	Note 2	
14	TAC Unit OR 24 Hour Change	24 Hour OR change Type ----- old ----- new -----	UNIT	Note 2	
15	No TAC Unit Status Report Received	No Unit Status Report Time Due -----	UNIT	Note 2	
16	No Airfield and Flight Facility Status Report Received	No Airfield and Flight Facility Status Message Time Due -----	BASE	AIRDEF	
17	Number of Aircraft Airborne differs from number scheduled	Number of Aircraft Airborne scheduled ----- reported -----	MSN-NUM	Note 1	

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ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
18	Reported Takeoff Time differs from Scheduled Time	Mission Departure scheduled ----- reported -----	MSN-NUM	Note 1	
19	Reported Estimated Time over Target Differs from Old Estimated Time	Time over Target old ETOT ----- new ETOT -----	MSN-NUM	Note 1	
20	Non-Returned Aircraft	Landing Report	MSN-NUM	Note 1	Total message is printed-LDGR
21	Reported Time over Target Differs from Estimated Time	Time over Target scheduled ----- reported -----	MSN-NUM	Note 1	
22	Takeoff Report not Received	No Takeoff Report Scheduled Departure Time -----	MSN-NUM	Note 1	
23	Inflight Report Not Received	No Inflight Report Scheduled Time over Target -----	MSN-NUM	Note 1	
24	Landing Report not Received	No Landing Report Estimated Time of Return -----	MSN-NUM	Note 1	
25	Overscheduled Tanker	Tanker Overscheduled Fuel Reserve -----	MSN-NUM	TANKER	
26	Overdue Search and Rescue Report	Late SAR Mission Progress Report Estimated Intercept/Pickup Time -----	MSN-NUM	SAR	

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ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
27	On Station Report not Received	No On Station Report Estimated Time On Station ----	MSN-NUM	TANKER	
28	No Air Defense Fighter Status Report Received	No Air Defense Fighter Status Report Time Due -----	UNIT	AIRDEF	
29	Search and Rescue Requirement	SAR Requirement	REQ-NUM	SAR	Total message is printed-AIDR or DPRT
30	Ground Delay Message Received	Ground Delay old Departure Time ----- new Departure Time -----	MSN-NUM	Note 1	Total message is printed-GDEL
31	Air Delay Report Received	Air Delay old ETOT or ETR ----- new ETOT or ETR -----	MSN-NUM	Note 1	Total message is printed-ADEL
32	Cancellation Request Received	Cancellation Request	MSN-NUM	Note 1	An appropriate Mission Display will be presented
33	Missed Refueling	Missed Refueling Scheduled Refueling Time---- Scheduled Mission Number----	MSN-NUM	Note 1	Total message is printed-REFR
34	SAR Progress Report Received	SAR Progress	MSN-NUM	SAR	Total message is printed-SMRR
35	Tanker on Station Time Different from Schedule	Tanker On Station Scheduled time ----- Reported time -----	MSN-NUM	TANKER	

ALERT NUMBER	ALERT CONDITION	ALERT MESSAGE CONTENT	DATA BASE OBJECT	FUNCTIONAL ADDRESS	REMARKS
36	RECCE Inflight Report not Received	No RECCE Inflight Report Scheduled Time over Target--	MSN-NUM	Note 1	
37	Hostile Class Track Reported	Initial Report Hostile ClassTrack Classification -----		AIRDEF	Total message is printed-ASVD
38	Tactical Action Data Reported	TAC Action Report	TRACK	AIRDEF	Total message is printed-TAAD
39	Preplanned TAC Air Request	Preplanned TAC Air Request	REQ-NUM	PCAS	
40	Preplanned TAC Air RECCE/Surveillance Request	Preplanned TAC Air RECCE/ Surveillance Request	REQ-NUM	PREC	

Note 1 The functional address is a function of mission type:

Interdiction/Counter Air
 ICAS - INT/CA
 PCAS - ICAS
 Air Defense - PCAS
 IRECE - AIRDEF
 PRECCE - IREC
 EW - PREC
 Escort - EW
 CAP - INT/CA
 SAR - INT/CA
 SAR - SAR

Note 2 The functional address is a function of unit type:

Fighter - AIRDEF
 RECCE - IREC
 Refueling - TANKER
 Search and Rescue - SAR

3.1.2.7.5.1 Source and Types of Input

The input necessary to generate a Monitoring Alert message display is contained in the Monitoring Alerts data base file. The contents of this file are generated by the Input Message or the Condition Monitoring function when either of the functions have determined that an alert condition exists. For each alert message to be generated this file contains an entry identifying the alert message to be generated, the data base object identifier associated with the alert condition, and up to three different parameters that may be required to be output in the alert message. These parameters are inserted in the alert message that is prepared.

3.1.2.7.5.2 Destination and Type of Outputs

Monitoring Alert messages are sent to each user station that is assigned to the functional address specified for the Alert message. The following table contains the content and format specification for Monitoring Alert Messages specified for this system.

The message fields indicated by dashes in the alert messages listed below indicate the variable data fields. The data contained in the fields in Monitoring Alert Messages printed at user stations will contain the values stored in parameters 1, 2, 3 in the Monitoring Alerts File by the Input Message Processing and Condition/Event Monitoring Functions.

The date and time the message is prepared for output is all added to the Alert Message and appears in the printout on the first line of the Alert Message. It is indicated by DTG in the listed Alert Messages.

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1.	IMMED TAC AIR REQ	DTG
2.	IMMED TAC AIR RECCE/SURV REQ	DTG
3.	ICAS SCRAMBLE	DTG
4.	IRECCE SCRAMBLE	DTG
5.	AIR DEFENSE SCRAMBLE	DTG
6.	ABORT	DTG
7.	TAC FACILITY STATUS CHANGE	DTG
8.	BASE STATUS CHANGE OLD STATUS NEW STATUS	DTG
9.	BASE ETRO CHANGE OLD NEW	DTG
10.	FLIGHT FACILITY STATUS CHANGE NAME OLD STATUS NEW STATUS	DTG
11.	FACILITY ETRO NAME OLD ETRO NEW ETRO	DTG
12.	OR 8 HR BELOW MINIMUM TYPE OR 8 LIM FAC	DTG
13.	OR DIFFERENT FROM FORCAST TYPE OR FORCAST	DTG
14.	24 HOUR OR CHANGE TYPE OLD NEW	DTG
15.	NO UNIT STATUS REPORT TIME DUE	DTG
16.	NO AIRFIELD AND FLIGHT FACILITY MESSAGE NAME TIME DUE	DTG
17.	NUMBER OF AIRCRAFT AIRBORNE SCHEDULED REPORTED	DTG

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18.	MISSION DEPARTURE	_____	DTG
	SCHEDULED	_____ REPORTED _____	
19.	TIME OVER TARGET	_____	DTG
	OLD TOT	_____ NEW TOT _____	
20.	LANDING REPORT	_____	DTG
21.	TIME OVER TARGET	_____	DTG
	SCHEDULED	_____ REPORTED _____	
22.	NO TAKEOFF REPORT	_____	DTG
	SCHEDULED DEPARTURE TIME	_____	
23.	NO INFLIGHT REPORT	_____	DTG
	SCHEDULED TIME OVER TARGET	_____	
24.	NO LANDING REPORT	_____	DTG
	ESTIMATED TIME OF RETURN	_____	
25.	TANKER OVER SCHEDULED	_____	DTG
	FUEL RESERVE	_____	
26.	LATE SAR MISSION PROGRESS REPORT	_____	DTG
27.	NO ON STATION REPORT	_____	DTG
	ESTIMATED TIME ON STATION	_____	
28.	NO AIR DEFENSE FIGHTER STATUS REPORT	_____	DTG
	TIME DUE	_____	
29.	SAR REQUIREMENTS	_____	DTG
30.	GROUND DELAY	_____	DTG
	OLD DEPARTURE TIME	_____ NEW DEPARTURE TIME _____	
31.	AIR DELAY	_____	DTG
	OLD ETOT OR ETR	_____ NEW ETOT OR ETR _____	
32.	CANCELLATION REQUEST	_____	DTG
33.	MISSED REFUELING	_____	DTG
	SCHEDULED REFUELING TIME	_____ MISSION NO. _____	
34.	SAR PROGRESS	_____	DTG
35.	TANKER ON STATION	_____	DTG
	SCHEDULED TIME	_____ REPORTED TIME _____	

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36.	NO RECCE INFLIGHT REPORT	-----	DTG
	SCHEDULED TIME OVER TGT	-----	
37.	INIT HOSTILE	-----	DTG
38.	TAC ACTION	-----	DTG
39.	TAC AIR REQUEST	-----	DTG
40.	TAC RECCE/SURV REQUEST	-----	DTG

3.1.2.7.5.3 Processing

When the display control and generation function is scheduled to operate because it is necessary to generate a monitoring alert message, the Monitoring Alert File is examined for entries. For each entry contained in the file a monitoring alert message is constructed containing the following information:

Alert type

Object Identifier specified for alert type

Functional Addresses

When it is necessary to insert variable data in the alert message, this data is defined as Variable #1, #2, and #3 and stored in the Monitoring Alerts File. This data is inserted in the Alert Message as required and sent to the user station printer at the functional address specified for the message. In addition to printing the Alert Message as specified, the time the message is generated is also printed in the first line of the message. When an input message printout is specified as a part of the alert message, it follows the alert message immediately on the printed sheet.

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3.1.2.7.6 Control and User Option Displays

3.1.2.7.6.1 Control Display

The control display, i.e., TDSDT Status display, provides the capability to control and monitor the mode selection and functional assignment of user stations in the TDSDT. This display contains information related to the status and assignment of system elements. The assignment of operational functions to User Stations are recorded in this display. Control data concerning the Simulation and Condition/Event Monitoring Functions are entered and monitored by using this display. The entry of data and processing required for information contained in this display are specified in Section 3.1.2.1.

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INITIATE TDSDT

INITIATE REVISE TDSDT STATUS 01 JUL (182) 1707 HRS

DISK PACKS: SDC004 ----- SDC 008 -----

STATION	MODE	ASSIGNMENTS			
A1	STANDARD	-----	-----	-----	-----
A2	STANDARD	-----	-----	-----	-----
A3	STANDARD	-----	-----	-----	-----
B1	STANDARD	-----	-----	-----	-----
B2	STANDARD	-----	-----	-----	-----
B3	STANDARD	-----	-----	-----	-----
TDSAM	STANDARD	-----	-----	-----	-----

SIM: OFF MON: OFF SIM TIME: ---- SIM DATE: -- --

C/O SIM: OFF C/E MON: OFF TIME ADVANCE: - FRAG: --

3.1.2.7.6.2 User Option Displays

The User Option Displays provide lists of the DEDs, DBDs and other actions available to the operator. These displays present available actions in separate blocks of the display surface and provide the operator with the capability to select and initiate a specific action by positioning the cursor within the block of the action and taking the send block action. The first User Option Display presents an index of the lists of actions contained in the other User Option Displays and may be used to select these other displays. The index display itself is called by the OPTIONS action and is automatically presented when an operator initiates his User Station.

3.1.2.7.6.2.1 Source and Type of Inputs

Display request actions for the User Options displays are defined as follows:

- a. OPTIONS - a request for the User Options index
- b. DED LLLL - a request for a specific list of actions
identified by the LLLL group

The data content of each User Option Display is developed from fixed data contained in the system data base.

3.1.2.7.6.2.2 Processing

Each operator action requesting a User Option Display is processed to identify the specific display request. When the display has been identified it is retrieved from the system data base and transmitted to the User Station that was used to initiate the action.

3.1.2.7.6.2.3 Destination and Types of Outputs

Each User Option Display is routed to the display surface of the User Station that was used to initiate the request.

The User Option Displays include:

1. Options (the index)
2. Mission Adjustment
3. SAR Reports and Air Defense Reports
4. Mission Reports
5. Requests, Status Reports and Tanker Reports
6. Data Base Displays
7. Operator Actions
8. Build Schedule Display Action

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	1	2	3	4	5	6						
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	5					
1							1					
2												2
3												3
4							OPTIONS					4
5												5
6							+DED MSNA	MISSION ADJUSTMENT				6
7												7
8							+DED SRAD	SAR ASSIGNMENT				8
9												9
10							+DED SADR	SAR REPORTS				10
11												11
12							AIR DEFENSE REPORTS					12
13												13
14							+DED MSNR	MISSION REPORTS				14
15												15
16							+DED RSTR	REQUESTS				16
17												17
18							STATUS REPORTS					18
19												19
20							TANKER REPORTS					20
21												21
22							+DED DBDA	DATA BASE DISPLAYS				22
23												23
24							+DED OPRA	OPERATOR ACTIONS				24
25												25
26												26
27												27
28												28
29												29
30												30
31												31
32							+OPTIONS					32
	1	2	3	4	5	6						
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	4					

	1	2	3	4	5	6	
	1	2	3	4	5	6	
	123456789012345678901234567890123456789012345678901234						
1							1
2							2
3							3
4							4
5							5
6							6
7							7
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30							30
31							31
32							32

MISSION ADJUSTMENT

+DED FPAD ----- FIGHTER PLANNING ADJUSTMENT
[MSN NO/TARGET NO/REQ NO]

+DED RPAD ----- RECCE PLANNING ADJUSTMENT [MSN NO]

+DED SMPD SUPPORT MISSION PLANNING

+DED CTRS CANDIDATE TARGET REQUIREMENTS SELECTION

+DED CCRS CANDIDATE CAS REQUIREMENTS SELECTION

+DED CRRS CANDIDATE RECCE REQUIREMENTS SELECTION

+DED CFMS CANDIDATE FIGHTER MISSIONS SELECTION

+DED CRMS CANDIDATE RECCE MISSIONS SELECTION

+DED CFSD CANDIDATE FIGHTER MISSION SCHEDULE
DISPLAY REQUEST

+DED CRSD CANDIDATE RECCE MISSION SCHEDULE
DISPLAY REQUEST

+PREPARE FRAG

+CANCEL ----- [MSN NO]

+OPTIONS

	1	2	3	4	5	6	
	1	2	3	4	5	6	
	123456789012345678901234567890123456789012345678901234						

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	1	2	3	4	5	5	
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1	<div style="border: 1px solid black; padding: 10px;"><p>SAR REPORTS</p><p>+DED AIDR AIRCRAFT IN DISTRESS</p><p>+DED PRAD AIRCRAFT IN DISTRESS POSITION</p><p>+DED DPRT DOWNED PILOT</p><p>+DED SMPR SEARCH AND RESCUE POSITION</p><p>+DED SMRR SEARCH AND RESCUE PROGRESS</p><p>+PREPARE SAR FRAG</p><p>AIR DEFENSE REPORTS</p><p>+DED ADSM AIR DEFENSE SCRAMBLE</p><p>+DED ASVD AIR SURVEILLANCE DATA</p><p>+DED TAAD TACTICAL ACTION DATA</p><p>+OPTIONS</p></div>						1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
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123456789012345678901234567890123456789012345678901234

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	1	2	3	4	5	6
	1	2	3	4	5	6
	12345678901234567890123456789012345678901234					
1						
2						
3						
4						
5						
6	+DED ABTR	ABORT				
7						
8	+DED ADEL	AIR DELAY				
9						
10	+DED CANX	CANCELLATION				
11						
12	+DED GDEL	GROUND DELAY				
13						
14	+DED ICSM	IMMEDIATE CAS SCRAMBLE				
15						
16	+DED IRSM	IMMEDIATE RECCE SCRAMBLE				
17						
18	+DED INFR	INFLIGHT				
19						
20	+DED RSIR	JOINT TAC AIR RECCE/SURVEILLANCE INFLIGHT				
21						
22	+DED LDGR	LANDING				
23						
24	+DED TKOR	TAKEOFF				
25						
26						
27						
28						
29						
30						
31						
32	+OPTIONS					

12345678901234567890123456789012345678901234

1 2 3 4 5 6
0123456789012345678901234567890123456789012345678901234

1
2
3
4 REQUESTS
5
6 +DED ACAQ ----- JOINT TAC AIR [REQ NO]
7
8 +DED ARSQ ----- JOINT TAC AIR RECCE/SURVEILLANCE [REQ NO]
9
10
11 STATUS REPORTS
12
13 +DED ADFS ----- AIR DEFENSE FIGHTER STATUS [UNIT]
14
15 +DED AFFS ----- AIRFIELD & FLIGHT FACILITY STATUS [BASE]
16
17 +DED TFAS ----- TACS FACILITY STATUS [UNIT]
18
19 +DED TAUS ----- TACTICAL UNIT STATUS [UNIT]
20
21
22 TANKER REPORTS
23
24 +DED ONSR ON-STATION
25
26 +DED REFR REFUELING
27
28
29
30
31
32 +OPTIONS

	1	2	3	4	5	6	
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	
1							1
2							2
3							3
4							4
5							5
6							6
7							7
8							8
9							9
10							10
11							11
12							12
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24							24
25							25
26							26
27							27
28							28
29							29
30							30
31							31
32							32
	1	2	3	4	5	6	
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234	

OPERATOR ACTIONS

+INITIATE TSDST

+PREPARE FRAG

+PREPARE SAR FRAG

+MSN PAGE 1

+SCHED PAGE 1 SET 1

+BUILD MISSION -----

+CANCEL -----

+DED BSDA BUILD SCHEDULE DISPLAY ACTION

+DISPLAY ----- OBJECT ----- PAGE 1

+DISPLAY ----- PROP ----- PAGE 1

+DISPLAY ----- FILE PAGE 1 SET 1

+OPTIONS

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123456789012345678901234567890123456789012345678901234

3.1.2.7.7 Data Base File Display

In addition to the planned displays presented previously, the operator has access to the entire set of data base files and can display each object and/or property contained therein. The basic vehicle for these displays is the standard TSDST system data retrieval and display capability. For user convenience a subset of the data base containing the more operationally significant data files are identified as DBD's in one of the User Option Displays and can be requested without specifying the full TSDST system display request.

3.1.2.7.7.1 Sources and Types of Inputs

Inputs to the Data Base File Display capability are of two general types. The first is the data base files. These files provide all of the operational data to be displayed. The other source of inputs are the operator display requests. Three distinct types of display requests may be made:

- . display requests (TSDST format)
- . display requests (DBD format)
- . requests for succeeding pages/sets.

3.1.2.7.7.1.1 TSDST Format Requests

The two TSDST format requests of most significance to the operator are presented below. All other standard display requests are also available to the operator.

1. DISPLAY (file name) FILE PAGE 1 SET 1

The "file name" used is the "short title" found in Section 3.1.3 - Data Base Requirements or Section 3.1.2.7.7.3.2 - Data Base File Display Catalog. This request results in the display, in basic TSDST System format, of the property values specified for Set 1 of the first ten file objects.

2. DISPLAY (file name) OBJECT (object name)

The "file name" used in this request is identical to that specified for the previous request type. "Object name" is the value of the file object of interest. File objects are identified, for each file, in Section 3.1.3 - Data Base Requirements. This request results in a standard three column TDSDT System display of the requested object. The first twenty properties of the object are presented along with the property names.

3.1.2.7.7.1.2 DBD Format Requests

For selected files the operator may request data base file displays via the abbreviated notation "DBD (number) (object)". The following table identifies the nineteen DBD requests to be implemented in the functional software package and the object identifiers appropriate to each. Two basic forms of the DBD request are available:

1. DBD (number)

This request results in the generation and execution of a type 1 standard format display request (see Section 3.1.2.7.7.1.1).

2. DBD (number) (object)

This request results in the generation and execution of a type 2 standard format display request (see Section 3.1.2.7.7.1.1). "Object" in this request is the value of the object desired and this display request form is limited to those DBD's listed with object identifiers in the Table.

DATA BASE DISPLAY ACTIONS

Request		File Description	Object Identifier
Required	Optional		
+DBD	1	AIR DEFENSE FIGHTER STATUS	
+DBD	2 -----	AIR DEFENSE FRAG ORDER	[UNIT]
+DBD	3	AIRFIELD AND FLIGHT FACILITY STATUS	
+DBD	4 -----	CAS REQUEST	[REQUEST NO]
+DBD	5	COMMAND GUIDANCE	
+DBD	6 -----	FIGHTER ASSIGNMENT	[UNIT]
+DBD	7 ---/	ICAS FRAG ORDER	[UNIT]
+DBD	8 ---/	IRECCE FRAG ORDER	[UNIT]
+DBD	9 -----	RECCE REQUEST	[REQUEST NO]
+DBD	10 -----	RECCE/EW ASSIGNMENT	[UNIT]
+DBD	11 -----	SAR REQUIREMENT	[REQ NO]
+DBD	12 -----	TAC ACTION DATA	[TRACK NO]
+DBD	13 -----	TAC BASE MUNITIONS STATUS	[BASE]
+DBD	14	TAC UNIT STATUS	
+DBD	15	TAC FACILITY STATUS	
+DBD	16 ----	TARGET	[TARGET NO]
+DBD	17 -----	TRACK DATA	[TRACK NO]
+DBD	18	--- UNIT MISSIONS	
+DBD	19 ---/	UNIT PLANNING	[UNIT]

3.1.2.7.7.1.3 Requests for Succeeding Pages and/or Sets

Many of the data base files require multiple pages and/or sets for full data presentation. To achieve additional displays beyond page 1, set 1 of any display, the operator may modify the page and set identifiers shown on the previous request that appears in line 1 of the output display. Line 1 appears in standard TDSDT system format for both standard system requests and the DBD requests and can be retransmitted as a new display request.

3.1.2.7.7.2 Processing

Processing of all standard format requests is performed by the basic processing capabilities of the TDSDT system. This processing consists of transmission of the display request to the IBM 1800, retrieval of the required data, display construction and transmission to the PDP-8 for routing to the requesting operator position.

Processing for the DBD requests will translate the DBD request into the equivalent standard format request. The remainder of DBD processing is identical to the processing for standard format requests.

3.1.2.7.7.3 Destination and Types of Outputs

Output of the Data Base File Display subfunction consists of data displays in standard TDSDT System format and error messages associated with each display request type. Error responses are treated in Section 5.0 - Operator Actions and System Responses.

3.1.2.7.7.3.1 Standard Display Format

The standard display format used for all data base displays discussed above is shown below. Other TDSDT system standard formats are discussed in the appropriate reference documents listed in Section 2.0 - Applicable Documents.

Figure 24

STANDARD DATA BASE DISPLAY FORMAT

	1	2	3	4	5	6
	12345678901234	5678901234	5678901234	5678901234	5678901234	5678901234
1	DISPLAY (FILENAME) FILE PAGE a SET b					
2	01 JULY (182) 1234 COMPLETE					
3						
4						
5	FILE		UNCLASSIFIED		PAGE 002 OF 004	
6	(FILENAME)				SET 003 OF 012	
7						
8						
9	(#)	.	.	.	.	(#)
10	(NAME)	.	.	.	.	(NAME)
11						
12	11 (VALUE)	.	.	.	.	(VALUE)
13						
14	12	.				
15						
16	13	.				
17						
18	14	.				
19						
20	15	.				
21						
22	16	.				
23						
24	17	.				
25						
26	18	.				
27						
28	19	.				
29						
30	20 (VALUE)	.	.	.	.	(VALUE)
31						
32	UNCLASSIFIED					

NOTE: This is a multi-column display presenting in each column the property number (#), property name (NAME) and up to ten property values (VALUE).

3.1.2.7.7.3.2 Data Base File Display Catalog

The following pages present, for each system file, the display set specifications incorporated within those files. For each file the long and short file titles are listed in the upper left corner of the page and the total number of sets specified for the file is listed in the upper right corner. The DBD number, when one exists, is also listed at the upper right. Each set is then listed by set number and depicts both the data label and data value spacing for the set.

All display sets have been specified to start in column 6 and end on or before column 63. An appropriate object identifier has been included as the first property of each display set to assure positive data identification. The standard spacing used between properties has been set at one column between the ending position of the preceding property label or value (whichever is longer) and the starting position of the succeeding property. Labels and data values are left-justified throughout. Every attempt has been made to list operationally related data within one set but display horizontal size precludes extensive data presentation within a single set. Data values of extended or indeterminate length have been positioned in the right most position of a display set and may be truncated. A "+" has been used in the catalog to indicate where this may happen. Sets have been ordered in a relatively standard manner from file to file and, where appropriate, follow an operationally significant time sequence throughout the sets.

The set specifications described should be considered an initial set of specifications and can be modified to accommodate unique operational needs or user preferences by the modification, resequencing or addition of display sets. Regeneration of the modified files will then be required but no functional software modifications will be required if modifications are restricted to the display set specifications.

The following list of display set specifications are presented alphabetically by long file title and are, therefore, in the same order as the files appear in Section 3.1.3 - Data Base Requirements.

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-493-

System Development Corporation
TM-LX-346/600/01

Aircraft Characteristics

ACFTCHAR

2 Sets

SET 1 A/C-TYPE ORD-WT PPH SPD TOTAL-FUEL
 XXXXXX XXXX XXXX XXX XXXXX

SET 2 A/C-TYPE ORD-WT REMARKS
 XXXXXX XXXX XX

1 December 1971

-494-

System Development Corporation
TM-LX-346/600/01

Air Defense Fighter Status

DBD-1

ADFTRSTAT

2 Sets

SET 1 UNIT BASE AS-OF-TIME A/C-TYPE 2-MIN 5-MIN 5-MIN-TANK
 XXXXXX XXXX XXXXXXXXXXXX XXXXXX XX XX XX

SET 2 UNIT BASE TIME A/C-TYPE 15-MIN 30-MIN 1-HOUR 3-HOUR
 XXXXXX XXXX XXXX XXXXXX XX XX XX XX

1 December 1971

-495-

System Development Corporation
TM-LX-346/600/01

Air Defense Frag Order

DBD-2

ADFRAG

4 Sets

SET 1	UNIT	TRANSMIT	FIRST-MSN	LAST-MSN	A/C-TYPE	NUM-A/C
	XXXXXX	X	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXX	XX

SET 2	UNIT	FIRST-C/S	LAST-CS	ALERT-TYPE
	XXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXX

SET 3	UNIT	ORD-CODE	NUM-A/C	DURATION	SORT-SCRAM
	XXXXXX	XXXX	XX	XXXXXXXXXXXXXXXXXX	XX

SET 4	UNIT	DEP-BASE	CTRL-AGENCY	CTRL-FREQ	CAP-POINT
	XXXXXX	XXXX	XXXXXXXXXXXXXXXXXX	XXXXX	XXXXXXXXXXXXXX

Airfield and Flight Facility Status
AFLD/FLTFCDBD-3
20 Sets

SET 1	BASE AS-OF-TIME	BASE-STAT	OP-LIMIT	ETRO-BASE
	XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX
SET 2	BASE REA			
	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		
SET 3	BASE TIME-1	ETRO-FAC-1	ETRO-FAC-2	ETRO-FAC-3 ETRO-FAC-4
	XXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX XXXXXXXXXX
SET 4	BASE TIME-1	ETRO-FAC-5	ETRO-FAC-6	ETRO-FAC-7 ETRO-FAC-8
	XXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX XXXXXXXXXX
SET 5	BASE FAC-NAME-1	STATUS-1	REA-1	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
SET 6	BASE FAC-NAME-2	STATUS-2	REA-2	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
SET 7	BASE FAC-NAME-3	STATUS-3	REA-3	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
SET 8	BASE FAC-NAME-4	STATUS-4	REA-4	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
SET 9	BASE FAC-NAME-5	STATUS-5	REA-5	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
SET 10	BASE FAC-NAME-6	STATUS-6	REA-6	
	XXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX

Airfield and Flight Facility Status (Cont'd)
AFLD/FLT FACDBD-3
20 Sets

SET 11	BASE FAC-NAME-7	STATUS-7	REA-7
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX
SET 12	BASE FAC-NAME-8	STATUS-8	REA-8
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX
SET 13	BASE FAC-NAME-1	OPNL-LIMIT-1	ETRO-FAC-1
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 14	BASE FAC-NAME-2	OPNL-LIMIT-2	ETRO-FAC-2
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 15	BASE FAC-NAME-3	OPNL-LIMIT-3	ETRO-FAC-3
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 16	BASE FAC-NAME-4	OPNL-LIMIT-4	ETRO-FAC-4
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 17	BASE FAC-NAME-5	OPNL-LIMIT-5	ETRO-FAC-5
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 18	BASE FAC-NAME-6	OPNL-LIMIT-6	ETRO-FAC-6
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 19	BASE FAC-NAME-7	OPNL-LIMIT-7	ETRO-FAC-7
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 20	BASE FAC-NAME--8	OPNL-LIMIT-8	ETRO-FAC-8
	XXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX

Air Refueling Mission Schedule

REFUELSCHED

21 Sets

SET 1	MSN-NUM	C/S	REFUEL-FREQ	TOTAL-SORT	STATUS
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXX	XX	X
SET 2	MSN-NUM	REFUEL-AREA	TOTAL-FUEL	UNSCHED-FUEL	
	XXXXXXXXXXXX	XXXXXX	XXXXXX	XXXXXX	
SET 3	MSN-NUM	SCHED-ON-STA	ACT-ON-STA	SCHE-OFF-STA	
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
SET 4	MSN-NUM	5-MIN-01	5-MIN-02	5-MIN-03	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 5	MSN-NUM	5-MIN-04	5-MIN-05	5-MIN-06	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 6	MSN-NUM	5-MIN-07	5-MIN-08	5-MIN-09	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 7	MSN-NUM	5-MIN-10	5-MIN-11	5-MIN-12	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 8	MSN-NUM	5-MIN-13	5-MIN-14	5-MIN-15	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 9	MSN-NUM	5-MIN-16	5-MIN-17	5-MIN-18	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 10	MSN-NUM	5-MIN-19	5-MIN-20	5-MIN-21	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	

Air Refueling Mission Schedule (Cont'd)

REFUELSCHED

21 Sets

SET 11	MSN-NUM	5-MIN-22	5-MIN-23	5-MIN-24
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 12	MSN-NUM	SUP-MSN-01	SUP-FUEL-01	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 13	MSN-NUM	SUP-MSN-02	SUP-FUEL-02	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 14	MSN-NUM	SUP-MSN-03	SUP-FUEL-03	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 15	MSN-NUM	SUP-MSN-04	SUP-FUEL-04	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 16	MSN-NUM	SUP-MSN-05	SUP-FUEL-05	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 17	MSN-NUM	SUP-MSN-06	SUP-FUEL-06	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 18	MSN-NUM	SUP-MSN-07	SUP-FUEL-07	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	
SET 19	MSN-NUM	SUP-MSN-08	SUP-FUEL-08	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	

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System Development Corporation
TM-LX-346/600/01

Air Refueling Mission Schedule (Cont'd)

REFUELSCHED

21 Sets

SET 20	MSN-NUM	SUP-MSN-09	SUP-FUEL-09
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX

SET 21	MSN-NUM	SUP-MSN-10	SUP-FUEL-10
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX

1 December 1971

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System Development Corporation
TM-LX-346/600/01

Base/Control Agency

BASE/CONTROL

1 Set

SET 1 BASE CTRL-AGENCY CTRL-FREQ
XXXX XXXXXXXXXXXXXXXX XXXXX

1 December 1971

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System Development Corporation
TM-LX-346/600/01

Command Guidance

DBD-5

COMGUID

2 Sets

SET 1 INTD CAIR ADEF PCAS ICAS CAPE TOTAL-FTR
 XX XX XX XX XX XX XXX

SET 2 PREC IREC TOTAL-RECCE
 XX XX XXX

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System Development Corporation
TM-LX-346/600/01

Delta T

DELTA-T

1 SET

SET 1	SCHED	DTD	DTOT-F	DTOT-R	DTR	DTOS	DSAR
	XXXXXXXXXXXX	XX	XX	XX	XX	XX	XX

Electronic Warfare Frag Order/Mission Schedule

EWFRAG/MSN

26 Sets

SET 1	MSN-NUM	STATUS	TRANSMIT	C/S	RECALL
	XXXXXXXXXXXX	X	X	XXXXXXXXXXXX	XXXXXXXXXX
SET 2	MSN-NUM	SORT	A/C-TYPE	TYPE-SUPP	AREA
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXX	XXXXXXXXXXXX
SET 3	MSN-NUM	TGT-LOC-A	TGT-LOC-B	TGT-LOC-C	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 4	MSN-NUM	TGT-LOC-D	TGT-LOC-E	TGT-LOC-F	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 5	MSN-NUM	CTRL-AGENCY	CTRL-FREQ	DEP-BASE-LOC	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX	
SET 6	MSN-NUM	DEP-BASE	ETD	ATD	A/C-A/B
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX	XX
SET 7	MSN-NUM	ABORT-LOC	ABORT-LAND	ABORT-A/C	ABORT-REA
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XX	XXXXX
SET 8	MSN-NUM	PRE-FUEL-TK	PRE-FUEL-FR	PRE-FUEL-AR	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXX	
SET 9	MSN-NUM	PRE-FUEL-CP	PRE-FUEL-TI	PRE-FUEL-MS	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
SET 10	MSN-NUM	PRE-FUEL-PD	PRE-FUEL	PRE-FUEL-AT	
	XXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXX	

Electronic Warfare Frag Order/Mission Schedule (Cont'd)

EWFRAG/MSN

26 Sets

SET 11	MSN-NUM	REND-POINT	REND-TIME	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	
SET 12	MSN-NUM	OFFSET-IN	OFFSET-IN-TI	OFFSET-IN-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXX
SET 13	MSN-NUM	INGRESS	INGRESS-TIME	INGRESS-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XX
SET 14	MSN-NUM	ORBIT-PT	DURATION	TYPE-SUPP
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXX
SET 15	MSN-NUM	ETOO	ATOO	
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	
SET 16	MSN-NUM	EGRESS	EGRESS-TIME	EGRESS-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XX
SET 17	MSN-NUM	OFFSET-EG	OFFSET-EG-TI	OFFSET-EG-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXX
SET 18	MSN-NUM	POST-FUEL-TK	POST-FUEL-FR	POST-FUEL-AR
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXX	XXXXXX
SET 19	MSN-NUM	POST-FUEL-CP	POST-FUEL-TI	POST-FUEL-MS
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX
SET 20	MSN-NUM	POST-FUEL-PD	POST-FUEL	POST-FUEL-AT
	XXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXX

Electronic Warfare Frag Order/Mission Schedule (Cont'd)

EWFRAG/MSN

26 Sets

SET 21	MSN-NUM	RECOV-BASE	ETR	ATR	RECOV-LOC
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX
SET 22	MSN-NUM	SUP-MSN-1	SUP-MSN-2	SUP-MSN-3	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 23	MSN-NUM	SUP-MSN-4	SUP-MSN-5	REMARKS-1	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX+	
SET 24	MSN-NUM	LOC-DOWN	NO-RET-C/S	A/C-NO-RET	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XX	
SET 25	MSN-NUM	REA-NO-RET	MSN-RESULT		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		
SET 26	MSN-NUM	STATUS	REMARKS-2		
	XXXXXXXXXXXX	X	XX+		

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System Development Corporation
TM-LX-346/600/01

Fighter Assignment

DBD-6

FTRASGN

1 Set

SET 1	UNIT	A/C-TYPE	BASE	INTD	CAIR	ADEF	PCAS	ICAS	CAPE	TOTAL
	XXXXXX	XXXXXX	XXXXXX	XX	XX	XX	XX	XX	XX	XXX

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System Development Corporation
TM-LX-346/600/01

Immediate Close Air Support Frag Order

DBD-7

ICASFRAG

4 Sets

SET 1	UNIT TYPE TRANSMIT FIRST-MSN	LAST-MSN	MSN-TYPE SORT
	XXX XXX X	XXXXXXXXXXXXX XXXXXXXXXXXXXXXX XX	XX
SET 2	UNIT FIRST-C/S	LAST-C/S	CTRL-AGENCY
	XXX	XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX	
SET 3	UNIT A/C-TYPE ORD-CODE SORT DURATION	SORT-SCRAM	
	XXX XXXXX XXXX XX	XXXXXXXXXXXXXXXXX XX	
SET 4	UNIT DEP-BASE CTRL-AGENCY	CTRL-FREQ	
	XXX XXXX	XXXXXXXXXXXXXXXXX XXXXX	

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System Development Corporation
TM-LX-346/600/01

Immediate Close Air Support Mission Schedule

ICASSCHED

12 Sets

SET 1	MSN-NUM	REQ-NUM C/S	PRI	SORT	A/C-TYPE
	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXXXXXXXX	X	XX XXXXX
SET 2	MSN-NUM	TGT-LOC-A	TGT-LOC-B	TGT-LOC-C	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 3	MSN-NUM	TGT-LOC-D	TGT-LOC-E	TGT-LOC-F	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 4	MSN-NUM	AREA	TGT-ELEV	TGT-TYPE	ORD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXXXXXX	XXXX
SET 5	MSN-NUM	FIN-CTR-C/S	FIN-CTR-FREQ	CON-POINT	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 6	MSN-NUM	DEP-BASE	ETD	ATD	A/C-A/B
	XXXXXXXXXXXX	XXXXX	XXXXXXXXXX	XXXXXXXXXX	XX
SET 7	MSN-NUM	ABORT-LOC	ABORT-LAND	ABORT-A/C	ABORT-REA
	XXXXXXXXXXXX	XXXXX	XXXXXXXXXX	XX	XXXXX
SET 8	MSN-NUM	CON-POINT	ETOT	ATOT	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 9	MSN-NUM	RECOV-BASE	ETR	ATR	
	XXXXXXXXXXXX	XXXXX	XXXXXXXXXX	XXXXXXXXXX	
SET 10	MSN-NUM	LOC-DOWN	NO-RET-C/S	A/C-NO-RET	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XX	

System Development Corporation
TM-LX-346/600/01

ICASSCHED

```
SET 11      MSN-NUM      REA-NO-RET      MSN-RESULT
XXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX
```

```
SET 12      MSN-NUM      STATUS  REMARKS
XXXXXXXXXXXX X          XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX+
```

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System Development Corporation
TM-LX-346/600/01

Immediate Reconnaissance Frag Order

DBD-8

IRECFRAG

4 Sets

SET 1	UNIT TYPE TRANSMIT FIRST-MSN	LAST-MSN	MSN-TYPE SORT
	XXX XXX X	XXXXXXXXXXXXX XXXXXXXXXX XX	XX
SET 2	UNIT FIRST-C/S	LAST-C/S	CTRL-AGENCY
	XXX	XXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX
SET 3	UNIT A/C-TYPE SORT DURATION	SORT-SCRAM DEP-BASE	
	XXX XXXXX XX	XXXXXXXXXXXXXXXXX XX	XXXX
SET 4	UNIT DEP-BASE CTRL-AGENCY	CTRL-FREQ	
	XXX XXXX	XXXXXXXXXXXXXXXXX XXXXX	

Immediate Reconnaissance Mission Schedule

IRECSCHED

13 Sets

SET 1	MSN-NUM	REQ-NUM C/S	PRI SORT A/C-TYPE
	XXXXXXXXXXXX	XXXXXX XXXXXXXXXXXXXXXX	X XX XXXXX
SET 2	MSN-NUM	TGT-LOC-A	TGT-LOC-B TGT-LOC-C
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXXXXXXXXXX
SET 3	MSN-NUM	TGT-LOC-D	TGT-LOC-E TGT-LOC-F
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXXXXXXXXXX
SET 4	MSN-NUM	AREA	TGT-ELEV TGT-TYPE
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXX XXXXXXXXXXXXXXXX
SET 5	MSN-NUM	TYPE-RECCE	LTIOV
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXX
SET 6	MSN-NUM	DEP-BASE ETD	ATD A/C-A/B
	XXXXXXXXXXXX	XXXX XXXXXXXXX	XXXXXXXXXX XX
SET 7	MSN-NUM	ABORT-LOC	ABORT-LAND ABORT-A/C ABORT-REA
	XXXXXXXXXXXX	XXXX XXXXXXXXX	XX XXXXX
SET 8	MSN-NUM	ETOT	ATOT
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 9	MSN-NUM	RECOV-BASE ETR	ATR
	XXXXXXXXXXXX	XXXX XXXXXXXXX	XXXXXXXXXX
SET 10	MSN-NUM	IN-REP-IND	IN-REP-REQ PI-REQ PI-REQ-TI
	XXXXXXXXXXXX	X XXXXXXXXX	X XXXXXXXXX

System Development Corporation
TM-LX-346/600/01

13 Sets

```

SET 11      MSN-NUM      LOC-DOWN      NO-RET-C/S      A/C-NO-RET
XXXXXXXXXXXX XXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX

SET 12      MSN-NUM      REA-NO-RET      PROD-DEL-TI
XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXX

SET 13      MSN-NUM      STATUS REMARKS
XXXXXXXXXXXX X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX+

```

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System Development Corporation
TM-LX-346/600/01

Ingress/Egress Points

INGRES/EGRES

1 Set

SET 1	POINT LOC	OFFSET-LOC
XX	XXXXXXXXXXXX	XXXXXXXXXXXX

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System Development Corporation
TM-LX-346/600/01

Master Simulation

MASTERSIM

1 SET

SET 1	NAME	SOURCE	MSG-TYPE	MSG-DATA
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXX	XXXXXXXXXXXXXXXXXXXX+

Mission Type Distribution (Adjustment)

MSNTYPEDIS

4 Sets

Set 1	MSN-TYPE	ADD-1	ADD-2	ADD-3
	XX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX
SET 2	MSN-TYPE	ADD-4	ADD-5	ADD-6
	XX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX
SET 3	MSN-TYPE	ADD-7	ADD-8	ADD-9
	XX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX
SET 4	MSN-TYPE	ADD-10	ADD-11	ADD-12
	XX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXX

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System Development Corporation
TM-LX-346/600/01

Monitoring Alerts

MONITALERTS

2 Sets

SET 1 ALERT-NUM OBJECT-ID TO
 XX XXXXXXXXXXXX XXXX

SET 2 ALERT-NUM VAR-1 VAR-2 VAR-3
 XX XXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXX

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System Development Corporation
TM-LX-346/600/01

Ordinance Code

ORDCODE

3 Sets

SET 1 ORD-CODE WT A/C-TYPE
XXXX XXXX XXXXXX

SET 2 ORD-CODE TYPE-1 QUAN-1 TYPE-2 QUAN-2
XXXX XXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXX XXX

SET 3 ORD-CODE TYPE-3 QUAN-3 TYPE-4 QUAN-4
XXXX XXXXXXXXXXXXXXXX XXX XXXXXXXXXXXXXXXX XXX

1 December 1971

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System Development Corporation
TM-LX-346/600/01

Output Message Transmission Storage

OUTMSGTRANS

1 Set

SET 1	SEQ-NUM	TO	FROM	SUBJECT	DATA
	XX	XXXXXX	XXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXX+

1 December 1971

-520-

System Development Corporation
TM-LX-346/600/01

Preplanned Close Air Support Request

DBD-4

PCASREQUEST

19 Sets

SET 1	REQ-NUM	TIME-SENDER	IMMED	PREPLAN	PRI	TAC-SIT
	XXXXX	XXXXXXXXXXXXXXXXX	X	X	X	X
SET 2	REQ-NUM	TYPE-FIRE	TGT	TGT-PARAM		
	XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXX		
SET 3	REQ-NUM	TGT-LOC-A	TGT-LOC-B	TGT-LOC-C	TGT-MOB	
	XXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	X	
SET 4	REQ-NUM	TGT-LOC-D	TGT-LOC-E	TGT-LOC-F	TGT-MOB	
	XXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	X	
SET 5	REQ-NUM	CHART-NUM	AREA	TGT-TIME		
	XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	X		
SET 6	REQ-NUM	ELEVATION	TGT-BEAR-DIS	TGT-DIR/SPD		
	XXXXX	XXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXX		
SET 7	REQ-NUM	TGT-TIME	DTG-1	DTG-2	DES-RESULTS	NUM-A/C
	XXXXX	X	XXXXXXXXXX	XXXXXXXXXX	X	XX
SET 8	REQ-NUM	DES-RESULTS	NUM-A/C	A/C-TYPE	ORD	FUZING
	XXXXX	X	XX	XXXXXX	XXXXXXXXXXXX	XXXX
SET 9	REQ-NUM	FRIEND-POS-A	FRIEND-POS-B	FRIEND-DIR	FRIEND-DIS	
	XXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XX	XXX	
SET 10	REQ-NUM	MARKING	TERRAIN	COLOR-MARKING	LOC	REQ-CON
	XXXXX	X	XXXXXX	XXXXXX	XXXXXXXXXXXX	X

1 December 1971

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System Development Corporation
TM-LX-346/600/01

Preplanned Close Air Support Request

DBD-4

PCASREQUEST

19 Sets

SET 11	REQ-NUM	FIN-CTR-C/S	FIN-CTR-FREQ	CON-POINT
	XXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 12	REQ-NUM	ATTACK-HDG	BREAK	MAG-HDG MIN-ALT
	XXXXX\	XXX	X	XXX XXXX
SET 13	REQ-NUM	REMARKS		
	XXXXX	XX		
SET 14	REQ-NUM	REC-ORD-1	REC-ORD-2	A/C-TYPE FTR-SUPP EW-SUPP
	XXXXX	XXXX	XXXX	XXXXXX X X
SET 15	REQ-NUM	MSN-1	SORT-1	ORD-1-1 ORD-1-2 ETOT-1
	XXXXX	XXXXXXXXXXXX	XX	XXXX XXXX XXXXXXXXX
SET 16	REQ-NUM	MSN-2	SORT-2	ORD-2-1 ORD-2-2 ETOT-2
	XXXXX	XXXXXXXXXXXX	XX	XXXX XXXX XXXXXXXXX
SET 17	REQ-NUM	MSN-3	SORT-3	ORD-3-1 ORD-3-2 ETOT-3
	XXXXX	XXXXXXXXXXXX	XX	XXXX XXXX XXXXXXXXX
SET 18	REQ-NUM	MSN-4	SORT-4	ORD-4-1 ORD-4-2 ETOT-4
	XXXXX	XXXXXXXXXXXX	XX	XXXX XXXX XXXXXXXXX
SET 19	REQ-NUM	MSN-5	SORT-5	ORD-5-1 ORD-5-2 ETOT-5
	XXXXX	XXXXXXXXXXXX	XX	XXXX XXXX XXXXXXXXX

Preplanned Fighter Frag Order/Mission Schedule

PFTRFRAG/MSN

33 Sets

SET 1	MSN-NUM	STATUS	TRANSMIT	C/S	RECALL
	XXXXXXXXXXXX	X	X	XXXXXXXXXXXX	XXXXXXXXXX
SET 2	MSN-NUM	SORT	A/C-TYPE	ORD-1	ORD-2 TGT-NUM REQ-NUM
	XXXXXXXXXXXX	XX	XXXXXX	XXXX	XXXX XXXX XXXX
SET 3	MSN-NUM	TGT-PRI	REQ-PRI	TOT	MSN-DELETED
	XXXXXXXXXXXX	X	X	XXXXXXXXXX	XXXXXXXXXXXX
SET 4	MSN-NUM	AREA	TGT-DESCRIP		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX		
SET 5	MSN-NUM	TGT-LOC-A	TGT-LOC-B	TGT-LOC-C	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 6	MSN-NUM	TGT-LOC-D	TGT-LOC-E	TGT-LOC-F	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 7	MSN-NUM	ALT-TGT-1	ALT-TGT-1-PR	ALT-TGT-1-LO	
	XXXXXXXXXXXX	XXXX	X	XXXXXXXXXXXX	
SET 8	MSN-NUM	ALT-TGT-1-DE			
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			
SET 9	MSN-NUM	ALT-TGT-2	ALT-TGT-2-PR	ALT-TGT-2-LO	
	XXXXXXXXXXXX	XXXX	X	XXXXXXXXXXXX	
SET 10	MSN-NUM	ALT-TGT-2-DE			
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX			

Preplanned Fighter Frag Order/Mission Schedule (Cont'd)

PFTRFRAG/MSN

33 Sets

SET 11	MSN-NUM	FAC-C/S	FAC-FREQ	FAC-LOC	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
SET 12	MSN-NUM	CTRL-AGENCY	CTRL-FREQ	DEP-BASE-LOC	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX	
SET 13	MSN-NUM	DEP-BASE ETD	ATD	A/C-A/B	
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX XX	
SET 14	MSN-NUM	ABORT-LOC	ABORT-LAND	ABORT-A/C	ABORT-REA
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XX	XXXXX
SET 15	MSN-NUM	PRE-FUEL-TK	PRE-FUEL-FR	PRE-FUEL-AR	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXX	XXXXXX	
SET 16	MSN-NUM	PRE-FUEL-CP	PRE-FUEL-TI	PRE-FUEL-MS	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
SET 17	MSN-NUM	PRE-FUEL-PD	PRE-FUEL	PRE-FUEL-AT	
	XXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXX	
SET 18	MSN-NUM	REND-POINT	REND-TIME		
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX		
SET 19	MSN-NUM	OFFSET-IN	OFFSET-IN-TI	OFFSET-IN-CD	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXX	
SET 20	MSN-NUM	INGRESS	INGRESS-TIME	INGRESS-CD	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XX	

Preplanned Fighter Frag Order/Mission Schedule (Cont'd)

PFTRFRAG/MSN

SET 21	MSN-NUM	CAP-POINT	CAP-DUR	FAC-FREQ
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXX
SET 22	MSN-NUM	ETOT	ATOT	FAC-C/S
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXXXXXX
SET 23	MSN-NUM	EGRESS	EGRESS-TIME	EGRESS-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XX
SET 24	MSN-NUM	OFFSET-EG	CFFSET-EG-TI	OFFSET-EG-CD
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXX
SET 25	MSN-NUM	POST-FUEL-TK	POST-FUEL-FR	POST-FUEL-AR
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXX	XXXXXX
SET 26	MSN-NUM	POST-FUEL-CP	POST-FUEL-TI	POST-FUEL-MS
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX
SET 27	MSN-NUM	POST-FUEL-PD	POST-FUEL	POST-FUEL-AT
	XXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXXXX
SET 28	MSN-NUM	RECOV-BASE	ETR	ATR
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX
SET 29	MSN-NUM	SUP-MSN-1	SUP-MSN-2	SUP-MSN-3
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 30	MSN-NUM	SUP-MSN-4	SUP-MSN-5	REMARKS-1
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX+

System Development Corporation
TM-LX-346/600/01

PFTRFRAG/MSN

```

SET 31      MSN-NUM          LOC-DOWN      NO-RET-C/S      A/C-NO-RET
            XXXXXXXXXXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XX

SET 32      MSN-NUM          REA-NO-RET      MSN-RESULT
            XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXXXXXXXXXX

SET 33      MSN-NUM          STATUS REMARKS-2
            XXXXXXXXXXXX X      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX+

```

Preplanned Reconnaissance Frag Order/Mission Schedule

PRECFRAG/MSN

60 Sets

SET 1	MSN-NUM	STATUS	TRANSMIT	C/S	RECALL
	XXXXXXXXXXXXX	X	X	XXXXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 2	MSN-NUM	SORT	A/C-TYPE	NUM-REQ	REMARKS-1
	XXXXXXXXXXXXX	XX	XXXXXX	X	XXXXXXXXXXXXXXXXXXXXX+
SET 3	MSN-NUM	REQ-NUM-1	REQ-PRI-1	TGT-NUM-1	TOT-1
	XXXXXXXXXXXXX	XXXXXX	X	XXXX	XXXXXXXXXXXXX
SET 4	MSN-NUM	AREA-1	TGT-CAT-1		
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX+		
SET 5	MSN-NUM	TGT-LOC-A-1	TGT-LOC-B-1	TGT-LOC-C-1	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
SET 6	MSN-NUM	TGT-LOC-D-1	TGT-LOC-E-1	TGT-LOC-F-1	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
SET 7	MSN-NUM	TYPE-RECCE-1	SPEC-EEI-1		
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX+		
SET 8	MSN-NUM	TYPE-PHOTO-1	TYPE-FILM-1		
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	X		
SET 9	MSN-NUM	MAP-CHART-1	SCALE-1		
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX+		
SET 10	MSN-NUM	PROD-1	SPEC-INSTR-1		
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX+		

Preplanned Reconnaissance Frag Order/Mission Schedule (Cont'd)

PRECFRAG/MSN

60 Sets

SET 11	MSN-NUM	NUM-COPIES-1	DELIV-TIME-1	
	XXXXXXXXXXXX	XXXXXXXX	XXXXXXXXXXXXXXXXXXXX	
SET 12	MSN-NUM	REQ-NUM-2	REQ-PRI-2	TGT-NUM-2 TOT-2
	XXXXXXXXXXXX	XXXXXX	X	XXXX XXXXXXXXX
SET 13	MSN-NUM	AREA-2	TGT-CAT-2	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX+	
SET 14	MSN-NUM	TGT-LOC-A-2	TGT-LOC-B-2	TGT-LOC-C-2
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 15	MSN-NUM	TGT-LOC-D-2	TGT-LOC-E-2	TGT-LOC-F-2
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 16	MSN-NUM	TYPE-RECCE-2	SPEC-EEI-2	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX+	
SET 17	MSN-NUM	TYPE-PHOTO-2	TYPE-FILM-2	
	XXXXXXXXXXXX	XXXXXXXXXXXX	X	
SET 18	MSN-NUM	MAP-CHART-2	SCALE-2	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX+	
SET 19	MSN-NUM	PROD-2	SPEC-INSTR-2	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX+	
SET 20	MSN-NUM	NUM-COPIES-2	DELIV-TIME-2	
	XXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXXXXXXXXXX	

Preplanned Reconnaissance Frag Order/Mission Schedule (Cont'd)

PRECFRAG/MSN

60 Sets

SET 21	MSN-NUM	REQ-NUM-3	REQ-PRI-3	TGT-NUM-3	TOT-3
	XXXXXXXXXXXX	XXXXXX	X	XXXX	XXXXXXXXXX
SET 22	MSN-NUM	AREA-3	TGT-CAT-3		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX+		
SET 23	MSN-NUM	TGT-LOC-A-3	TGT-LOC-B-3	TGT-LOC-C-3	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 24	MSN-NUM	TGT-LOC-D-3	TGT-LOC-E-3	TGT-LOC-F-3	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 25	MSN-NUM	TYPE-RECCE-3	SPEC-EEI-3		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX+		
SET 26	MSN-NUM	TYPE-PHOTO-3	TYPE-FILM-3		
	XXXXXXXXXXXX	XXXXXXXXXXXX	X		
SET 27	MSN-NUM	MAP-CHART-3	SCALE-3		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX+		
SET 28	MSN-NUM	PROD-3	SPEC-INSTR-3		
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX+		
SET 29	MSN-NUM	NUM-COPIES-3	DELIV-TIME-3		
	XXXXXXXXXXXX	XXXXXX	XXXXXXXXXXXXXXXXXXXXX		
SET 30	MSN-NUM	REQ-NUM-4	REQ-PRI-4	TGT-NUM-4	TOT-4
	XXXXXXXXXXXX	XXXXXX	X	XXXX	XXXXXXXXXX

Preplanned Reconnaissance Frag Order/Mission Schedule (Cont'd)

PRECFRAG/MSN

60 SETS

SET 31	MSN-NUM	AREA-4	TGT-CAT-4	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	+
SET 32	MSN-NUM	TGT-LOC-A-4	TGT-LOC-B-4	TGT-LOC-C-4
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 33	MSN-NUM	TGT-LOC-D-4	TGT-LOC-E-4	TGT-LOC-F-4
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX
SET 34	MSN-NUM	TYPE-RECCE-4	SPEC-EEI-4	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	+
SET 35	MSN-NUM	TYPE-PHOTO-4	TYPE-FILM-4	
	XXXXXXXXXXXX	XXXXXXXXXXXX	X	
SET 36	MSN-NUM	MAP-CHART-4	SCALE-4	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXX	+
SET 37	MSN-NUM	PROD-4	SPEC-INSTR-4	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	+
SET 38	MSN-NUM	NUM-COPIES-4	DELIV-TIME-4	
	XXXXXXXXXXXX	XXXXXXX	XXXXXXXXXXXXXXXXXXXX	
SET 39	MSN-NUM	CTRL-AGENCY	CTRL-FREQ	DEP-BASE-LOC
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX
SET 40	MSN-NUM	DEP-BASE ETD	ATD	A/C-A/B
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XXXXXXXXXX XX

Preplanned Reconnaissance Frag Order/Mission Schedule (Cont'd)

PRECFRAG/MSN

60 Sets

SET 41	MSN-NUM	ABORT-LOC	ABORT-LAND	ABORT-A/C	ABORT-REA
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	XX	XXXXX
SET 42	MSN-NUM	PRE-FUEL-TK	PRE-FUEL-FR	PRE-FUEL-AR	
	XXXXXXXXXXXX	XXXXXXXXXXXXXXXX	XXXXX	XXXXXX	
SET 43	MSN-NUM	PRE-FUEL-CP	PRE-FUEL-TI	PRE-FUEL-MS	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXXXX	
SET 44	MSN-NUM	PRE-FUEL-PD	PRE-FUEL	PRE-FUEL-AT	
	XXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXXXX	
SET 45	MSN-NUM	REND-POINT	REND-TIME		
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX		
SET 46	MSN-NUM	OFFSET-IN	OFFSET-IN-TI	OFFSET-IN-CD	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XXX	
SET 47	MSN-NUM	INGRESS	INGRESS-TIME	INGRESS-CD	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXX	XX	
SET 48	MSN-NUM	ETOT-1	ATOT-1	REQ-NUM-1	TGT-NUM-1
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXX	XXXX
SET 49	MSN-NUM	ETOT-2	ATOT-2	REQ-NUM-2	TGT-NUM-2
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXX	XXXX
SET 50	MSN-NUM	ETOT-3	ATOT-3	REQ-NUM-3	TGT-NUM-3
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXX	XXXX

System Development Corporation
TM-LX-346/600/01

60 Sets

SET 51	MSN-NUM	ETOT-4	ATOT-4	REQ-NUM-4	TGT-NUM-4
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXX	XXXX
SET 52	MSN-NUM	EGRESS	EGRESS-TIME	EGRESS-CD	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XX	
SET 53	MSN-NUM	OFFSET-EG	OFFSET-EG-TI	OFFSET-EG-CD	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXX	
SET 54	MSN-NUM	POST-FUEL-TK	POST-FUEL-FR	POST-FUEL-AR	
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXX	XXXXX	XXXXXX	
SET 55	MSN-NUM	POST-FUEL-CP	POST-FUEL-TI	POST-FUEL-MS	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
SET 56	MSN-NUM	POST-FUEL-PD	POST-FUEL	POST-FUEL-AT	
	XXXXXXXXXXXXX	XXXXX	XXXXX	XXXXXXXXXXXXX	
SET 57	MSN-NUM	RECOV-BASE	ETR	ATR	RECOV-LOC
	XXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX
SET 58	MSN-NUM	LOC-DOWN	NO-RET-C/S	A/C-NO-RET	
	XXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XX	
SET 59	MSN-NUM	REA-NO-RET	SUP-MSN-1	SUP-MSN-2	
	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXX	XXXXXXXXXXXXX	
SET 60	MSN-NUM	STATUS	MSN-DELETED	REMARKS-2	
	XXXXXXXXXXXXX	X	XXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXX	

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System Development Corporation
TM-LX-346/600/01

Preplanned Air Reconnaissance Request (Cont'd)
PRECREQUEST

DBD-9

13 Sets

SET 11 REQ-NUM MSN-1 SORT-1 TOT-1
XXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXX

SET 12 REQ-NUM MSN-2 SORT-2 TOT-2
XXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXX

SET 13 REQ-NUM MSN-3 SORT-3 TOT-3
XXXXXXXXXXXXXXXXXXXX X XXXXXXXXXXXX

Recall Words

RECALLWORD

38 Sets

SET 1	NAME WORD-LOC	R001	R002	R003	R004
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 2	NAME WORD-LOC	R005	R006	R007	R008
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 3	NAME WORD-LOC	R009	R010	R011	R012
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 4	NAME WORD-LOC	R013	R014	R015	R016
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 5	NAME WORD-LOC	R017	R018	R019	R020
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 6	NAME WORD-LOC	R021	R022	R023	R024
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 7	NAME WORD-LOC	R025	R026	R027	R028
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 8	NAME WORD-LOC	R029	R030	R031	R032
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 9	NAME WORD-LOC	R033	R034	R035	R036
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 10	NAME WORD-LOC	R037	R038	R039	R040
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX

Recall Words (Cont'd)

RECALLWORD

38 Sets

SET 11	NAME WORD-LOC	R041	R042	R043	R044
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 12	NAME WORD-LOC	R045	R046	R047	R048
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 13	NAME WORD-LOC	R049	R050	R051	R052
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 14	NAME WORD-LOC	R053	R054	R055	R056
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 15	NAME WORD-LOC	R057	R058	R059	R060
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 16	NAME WORD-LOC	R061	R062	R063	R064
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 17	NAME WORD-LOC	R065	R066	R067	R068
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 18	NAME WORD-LOC	R069	R070	R071	R072
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 19	NAME WORD-LOC	R073	R074	R075	R076
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 20	NAME WORD-LOC	R077	R078	R079	R080
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX

Recall Word (Cont'd)

RECALLWORD

38 Sets

SET 21	NAME WORD-LOC	R081	R082	R083	R084
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 22	NAME WORD-LOC	R085	R086	R087	R088
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 23	NAME WORD-LOC	R089	R090	R091	R092
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 24	NAME WORD-LOC	R093	R094	R095	R096
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 25	NAME WORD-LOC	R097	R098	R099	R100
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 26	NAME WORD-LOC	R101	R102	R103	R104
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 27	NAME WORD-LOC	R105	R106	R107	R108
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 28	NAME WORD-LOC	R109	R110	R111	R112
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 29	NAME WORD-LOC	R113	R114	R115	R116
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 30	NAME WORD-LOC	R117	R118	R119	R120
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX

Recall Words (Cont'd)

RECALLWORD

38 Sets

SET 31	NAME WORD-LOC	R121	R122	R123	R124
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 32	NAME WORD-LOC	R125	R126	R127	R128
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 33	NAME WORD-LOC	R129	R130	R131	R132
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 34	NAME WORD-LOC	R133	R134	R135	R136
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 35	NAME WORD-LOC	R137	R138	R139	R140
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 36	NAME WORD-LOC	R141	R142	R143	R144
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 37	NAME WORD-LOC	R145	R146	R147	R148
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 38	NAME WORD-LOC	R149	R150		
	XX	XXX	XXXXXXXXXX	XXXXXXXXXX	

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System Development Corporation
TM-LX-346/600/01

Reconnaissance/Electronic Warfare Assignment

DBD-10

RECCE/EWASGN

1 Set

SET 1	UNIT	A/C-TYPE	BASE	PREC	IREC	EW	TOTAL
	XXXXXX	XXXXXXXXXX	XXXXXX	XX	XX	XX	XX

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System Development Corporation
TM-LX-346/600/01

Refueling Area

REFUELAREA

2 Sets

SET 1	AREA	C-1	C-2	C-3	C-4
	XXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX
SET 2	REFUEL-CP	ALT	SPD HDGS	PATTERN	
	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXX XXXXXXXX	XXXXXXXXXXXXXX	

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System Development Corporation
TM-LX-346/600/01

Requesting Agency Distribution (Adjustment)

REQAGENCYDIS

1 Set

SET 1 REQUEST ADD

XX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

System Development Corporation
TM-LX-346/600/01

2 Sets

```

SET 1      BTRY      AS-OF-TIME TYPE TOTAL HI LO C/S      AADCP
          XXX      XXXXXXXXXXX XXXX XX X   XX XX XXXXXXXXXXXXXXXXXXXX XXXX

SET 2      NAME      TIME--1 TYPE 5' 15' 30' 1HR  3HR  NOP      ETRO
          XXXX XXXX   XXXX XX XX  XX  XX   XX  XX   XXXXXXXXXXXX

```


Search and Rescue Requirements

DBD-11

SARREQ

6 Sets

SET 1 REQ-NUM MSN-NUM C/S A/B-GRD ENEMY-ACT
XXXXX XXXXXXXXXXXXX XXXXXXXXXXXXXXXX XXXXXXXX XXXX

SET 2 REQ-NUM LOC DIS-DOWN-TI ALT EST-A/B HEADING
XXXXX XXXXXXXXXXXXX XXXXXXXXXX XX XXXX XXX

SET 3 REQ-NUM EST-T/D LOC-TI CURR-LOC
XXXXX XXXXXXXXXXXXX XXXXXXXXXX XXXXXXXXXXXXXXXX

SET 4 REQ-NUM SAR-MSN-01 SAR-MSN-02 SAR-MSN-03
XXXXX XXXXXXXXXXXXX XXXXXXXXXXXXX XXXXXXXXXXXXXXXX

SET 5 REQ-NUM COND-A/C
XXXXX XX

SET 6 REQ-NUM COND-CREW
XXXXX XX

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TM-LX-346/600/01

Search and Rescue Frag Order/Mission Schedule

SARFRAG/MSN

12 Sets

SET 1	MSN-NUM	STATUS	TRANSMIT	C/S	REQ-NUM
	XXXXXXXXXXXX	X	X	XXXXXXXXXXXX	XXXXX
SET 2	MSN-NUM	A/C-TYPE	DURATION	ALERT-STA	ATD
	XXXXXXXXXXXX	XXXXX	XXXXXXXXXXXX	XXXX	XXXXXXXX
SET 3	MSN-NUM	MSN-COORD	COORD-FREQ	ORBIT-PT	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXXXXXXXXXX	
SET 4	MSN-NUM	CTRL-AGENCY	CTRL-FREQ	EMER-FREQ	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXX	XXXX	
SET 5	MSN-NUM	REMARKS-1			
	XXXXXXXXXXXX	XX+			
SET 6	MSN-NUM	ABORT-LOC	ABORT-LAND	ABORT-A/C	ABORT-REA
	XXXXXXXXXXXX	XXXX	XXXXXXXXXX	X	XXXX
SET 7	MSN-NUM	REQ-NUM	DIS-DOWN-MSN	DIS-DOWN-C/S	
	XXXXXXXXXXXX	XXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 8	MSN-NUM	DEST	SAR-LOC	SAR-LOC-TI	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	
SET 9	MSN-NUM	EST-INT-PIC	ACT-INT-PIC	ETR	ATR
	XXXXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 10	MSN-NUM	LOC-DOWN	NO-RET-C/S	A/C-NO-RET	
	XXXXXXXXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX	X	

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Search and Rescue Frag Order/Mission Schedule (Cont'd)

SARFRAG/MSN

12 Sets

SET 11 MSN-NUM REA-NO-RET

XXXXXXXXXXXXX XXXXXXXXXXXXXXXX

SET 12 MSN-NUM STATUS REMARKS-2

XXXXXXXXXXXXX X XX+

Special Instructions

SPIN

10 Sets

SET 1	TYPE-SPIN SPIN-1 XX+
SET 2	TYPE-SPIN SPIN-2 XX+
SET 3	TYPE-SPIN SPIN-3 XX+
SET 4	TYPE-SPIN SPIN-4 XX+
SET 5	TYPE-SPIN SPIN-5 XX+
SET 6	TYPE-SPIN SPIN-6 XX+
SET 7	TYPE-SPIN SPIN-7 XX+
SET 8	TYPE-SPIN SPIN-8 XX+
SET 9	TYPE-SPIN SPIN-8 XX+
SET 10	TYPE-SPIN SPIN-10 XX+

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Tactical Action Data

DBD-12

TACTACTDATA

2 Sets

SET 1 TRACK REPORT TACTACT/TIME RESULT/TIME CLASS

XXXXXX X XXXXXXXXXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXX X

SET 2 TRACK REPORT CLASS CUM-KILL REMARKS

XXXXX X X XX XXXXXXXXXXXXXXXXXXXXXXXXXX

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4 Sets

XXXXXX XXXXXXXXXXXXXXX XXXX

XXXXXXXX XXXX XXXXXXXXXXXX XXXX XXXXXXXXXXXX

XXXXXX XXXX XXXXXXXXXXXX XXXX XXXXXXXXXXXXXXX

[illegible]

Tactical Base Munitions Status

DBD-13

BASEMUNSTAT

12 Sets

SET 1	BASE AS-OF-TIME TYPE-MUN-1	RDS-ONHAN-1
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 2	BASE AS-OF-TIME TYPE-MUN-2	RDS-ONHAN-2
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 3	BASE AS-OF-TIME TYPE-MUN-3	RDS-ONHAN-3
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 4	BASE AS-OF-TIME TYPE-MUN-4	RDS-ONHAN-4
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 5	BASE AS-OF-TIME TYPE-MUN-5	RDS-ONHAN-5
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 6	BASE AS-OF-TIME TYPE-MUN-6	RDS-ONHAN-6
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 7	BASE AS-OF-TIME TYPE-MUN-7	RDS-ONHAN-7
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 8	BASE AS-OF-TIME TYPE-MUN-8	RDS-ONHAN-8
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 9	BASE AS-OF-TIME TYPE-MUN-9	RDS-ONHAN-9
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	
SET 10	BASE AS-OF-TIME TYPE-MUN-10	RDS-ONHAN-10
	XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX	

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Tactical Base Munitions Status (Cont'd)

DBD-13

BASEMUNSTAT

12 Sets

SET 11 BASE AS-OF-TIME TYPE-MUN-11 RDS-ONHAN-11

XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX

SET 12 BASE AS-OF-TIME TYPE-MUN-12 RDS-ONHAN-12

XXXX XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXXX XXXXXX

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Tactical Unit Status

BDB-14

TACUNITSTAT

11 Sets

SET 1	UNIT	BASE AS-OF-TIME	A/C-TYPE-1	A/C-TYPE-2	UNIT-TYPE
	XXXXXX	XXXX	XXXXXXXXXX	XXXXXX	XXXXXX XXX
SET 2	UNIT	A/C-TYPE-1	A/C/ACREW-1		AS-OF-TIME
	XXXXXX	XXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		XXXXXXXXXX
SET 3	UNIT	A/C-TYPE-2	A/C/ACREW-2		AS-OF-TIME
	XXXXXX	XXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX		XXXXXXXXXX
SET 4	UNIT	A/C-OR-24-1	SORT-24-1	LIMITFACT-1	
	XXXXXX	XX	XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
SET 5	UNIT	A/C-OR-24-2	SORT-24-2	LIMITFACT-2	
	XXXXXX	XX	XX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX	
SET 6	UNIT	A/C-ASGD-1	A/C-POSS-1	A/C-OR-1	A/C-COMM-1
	XXXXXX	XX	XX	XX	XX
SET 7	UNIT	A/C-ASGD-2	A/C-POSS-2	A/C-OR-2	A/C-COMM-2
	XXXXXX	XX	XX	XX	XX
SET 8	UNIT	ACREW-ASGD-1	ACREW-POSS-1	ACREW-OR-1	ACREW-COMM-1
	XXXXXX	XX	XX	XX	XX
SET 9	UNIT	ACREW-ASGD-2	ACREW-POSS-2	ACREW-OR-2	ACREW-COMM-2
	XXXXXX	XX	XX	XX	XX
SET 10	UNIT	A/C-OR-8-1	ACREW-OR-8-1	A/C-OR-24-1	SORT-24-1
	XXXXXX	XX	XX	XX	XX

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Tactical Unit Status (Cont'd)

DBD-14

TACUNITSTAT

11 Sets

SET 11	UNIT	A/C-OR-8-2	ACREW-OR-8-2	A/C-OR-24-2	SORT-24-2
	XXXXXX XX		XX	XX	XX

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Target
TARGET

DBD-16
10 Sets

SET 1	TGT-NUM	TGT-NAME	FTRS			
	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX	X			
SET 2	TGT-NUM	TGT-LOC	TGT-DESCRIP			
	XXXX	XXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX			
SET 3	TGT-NUM	TGT-PRI	MSN-TYPE	A/C-TYPE	DTOT	LTOT
	XXXX	X	XX	XXXXXX	XXXXXXXXXX	XXXXXXXXXX
SET 4	TGT-NUM	REC-ORD-1	REC-ORD-2	SORT	FTR-SUPP	EW-SUPP
	XXXX	XXXX	XXXX	XX	X	X
SET 5	TGT-NUM	MSN-1	SORT-1	ORD-1-1	ORD-1-2	ETOT-1
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX
SET 6	TGT-NUM	MSN-2	SORT-2	ORD-2-1	ORD-2-2	ETOT-2
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX
SET 7	TGT-NUM	MSN-3	SORT-3	ORD-3-1	ORD-3-2	ETOT-3
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX
SET 8	TGT-NUM	MSN-4	SORT-4	ORD-4-1	ORD-4-2	ETOT-4
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX
SET 9	TGT-NUM	MSN-5	SORT-5	ORD-5-1	ORD-5-2	ETOT-5
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX
SET 10	TGT-NUM	MSN-6	SORT-6	ORD-6-1	ORD-6-2	ETOT-6
	XXXX	XXXXXXXXXXXX	XX	XXXX	XXXX	XXXXXXXXXX

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2 Sets

[illegible]

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```

SET 1      AGENCY      C/S      FREQ  DESIGNATOR  COMP-ROUTE
XXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXX XX          XXXX

SET 2      AGENCY      LOC      LAT/LONG      UTM      LI
XXXXXXXXXXXX XXXXXXXXXXXXXXXXXXX XXXXXXXXXXXXXXX XXXXXXXX XXXX

SET 3      AGENCY      AGENCY-TYPE  ADD
XXXXXXXXXXXX XXXX      XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

```

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Unit Frag Distribution (Adjustment)

UNITFRAGDIS

4 Sets

SET 1 UNIT ACTION

XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SET 2 UNIT INFO-1

XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SET 3 UNIT INFO-2

XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

SET 4 UNIT INFO-3

XXX XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

Unit Planning

DBD-19

UNITPLAN

8 Sets

SET 1	UNIT TYPE C/S	C/S-SEQ-NUM	IC-SEQ-NUM	AD-SEQ-NUM
	XXX XXX XXXXXXXXXXXX XX		XX	XX
SET 2	UNIT PC-SEQ-NUM	IN-SEQ-NUM	CA-SEQ-NUM	CP-SEQ-NUM
	XXX XX	XX	XX	XX
SET 3	UNIT ES-SEQ-NUM	IR-SEQ-NUM	PR-SEQ-NUM	EW-SEQ-NUM
	XXX XX	XX	XX	XX
SET 4	UNIT HOME-BASE	HOME-BASE-CO	DISP-BASE	DISP-BASE-CO
	XXX XXXX	XXXXXXXXXXXX XXXX		XXXXXXXXXXXX
SET 5	UNIT A/C-TYPE-1	SORT-AVAI-1	SORT-COMM-1	HOME-BASE
	XXX XXXXXX	XXX	XX	XXXX
SET 6	UNIT A/C-TYPE-2	SORT-AVAI-2	SORT-COMM-2	HOME-BASE
	XXX XXXXXX	XXX	XX	XXXX
SET 7	UNIT D-A/C-TYPE-1	D-SOR-AVAI-1	D-SOR-COMM-1	DISP-BASE
	XXX XXXXXX	XXX	XX	XXXX
SET 8	UNIT D-A/C-TYPE-2	D-SOR-AVAI-2	D-SOR-COMM-2	DISP-BASE
	XXX XXXXXX	XXX	XX	XXXX

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Working Simulation

WORKSIM

1 Set

SET 1	NAME	SOURCE	MSG-TYPE	MSG-DATA
	XXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXX	XXXXXXXXXXXXXXXXXXXXXXXXXXXX+

110TFS Mission File

DBD-18

110MSN

1 Set

SET 1	MSN-NUM	SORT A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXX

111TFS Mission File

DBD-18

111MSN

1 Set

SET 1	MSN-NUM	SORT A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXX

112TFS Mission File

DBD-18

112MSN

1 Set

SET 1	MSN-NUM	SORT A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXX

113TFS Mission File

DBD-18

113MSN

1 Set

SET 1	MSN-NUM	SORT A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXX

121TFS Mission File

DBD-18

121MSN

1 Set

SET 1	MSN-NUM	SORT A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXXXX	XXXXXXXXXXXX XXXX

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122TFS Mission File

DBD-18

122MSN

1 Set

SET 1	MSN-NUM	SORT	A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX

123TFS Mission File

DBD-18

123MSN

1 Set

SET 1	MSN-NUM	SORT	A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX

124TFS Mission File

DBD-18

124MSN

1 Set

SET 1	MSN-NUM	SORT	A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX

555TFS Mission File

DBD-18

555MSN

1 Set

SET 1	MSN-NUM	SORT	A/C-TYPE	ETD	ETR	BASE
	XXXXXXXXXXXX	XX	XXXXXX	XXXXXXXXXX	XXXXXXXXXX	XXXX

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3.1.2.8 Simulation Function

The purpose of this function is to construct a set of input messages by abstracting them from a master file of simulated inputs. This master file is preloaded and contains all messages which would be received via data lines and processed by the system during an operational exercise. Messages are selected from the master file on the basis of control data provided by the operator and are stored in a system file for use during system operation.

The Simulation Function is performed off-line and is initiated by operator input.

3.1.2.8.1 Source and Type of Inputs

The Simulation Function requires the following inputs:

- a. Exercisable Function Cards
- b. Master Simulation File

3.1.2.8.1.1 Exercisable Function Cards

These cards are input by the operator and serve to identify the operational functions which are to be active during the exercise and the effective times associated with the activity of these functions. The input data are used to determine the specific messages which are to be extracted from the Master Simulation File and entered in the Working Simulation File.

An Exercisable Function card contains one or more exercisable function statements. A statement consists of two fields separated by a comma:

- a. Function. This field may be one to three characters in length and contains one of the following function or subfunction names:

Preceding page blank

INPUT MESSAGES* FOR THE FOLLOWING FUNCTIONS WILL BE PROCESSED

All messages associated with Fighter Operations
Fighter Operations, Interdiction/Counter-Air
Fighter Operations, Immediate CAS
Fighter Operations, Preplanned CAS
Fighter Operations, Air Defense
All messages associated with RECCE Operations
RECCE Operations, Immediate
RECCE Operations, Preplanned
RECCE Operations, Electronic Warfare
All messages associated with Tanker Operations
All messages associated with Search and Rescue Operations
All messages which are not function-specific
All messages in the Master Simulation File

*Subject to time restrictions defined in the time field.

2. Time. This field consists of nine characters and is optional if the function name is "ALL". The first four characters specify a start time (0001-2400), the last four specify an end time, and the two times are separated by a space. If the time field is left blank with a function name of "ALL", it means that there are no time restrictions and consequently that all messages on the Master Simulation File are to be included on the Working Simulation File. The end item must be later than the start time. Therefore, if it is desired to specify a time frame which overlaps the 2400 point, two time frames must be used, i.e., 2350 2400 and 0001 0110 rather than 2350 0110.

When an Exercisable Function card contains more than one function statement, the function fields are grouped followed by the time fields. Within the groupings, the fields are delineated by commas. Examples of Exercisable Function cards and their interpretations are:

<u>Card Content</u>	<u>Interpretation</u>
0,1300 1400	Messages for all operations between 1300 and 1400
0,1300 1400, 1500 1600	Messages for all operations between 1300 and 1400 and between 1500 and 1600
OF,OR,1300 1315, 1600 1615	Messages for Fighter Operations and RECCE Operations between 1300 and 1315 and between 1600 and 1615
OFI,OT,1400 1430	Messages for Immediate CAS Fighter Operations and Tanker Operations between 1400 and 1430
ALL	All messages in the Master Simulation File
ALL,1445 1600	All messages in the Master Simulation File between 1445 and 1600

3.1.2.8.1.2 Master Simulation File

The Master Simulation File contains prepared input messages that simulate the reporting of operational events or conditions external to the TDSDT. The format of the Master Simulation File is defined in Section 3.1.3.16. To prepare the Master Simulation File each simulated message is manually scripted and placed on punched cards. File generation and maintenance is performed by the standard off-line data management tools of the TDSDT System.

Each message is scripted for one or more cards as follows:

<u>Columns</u>	<u>Content</u>
1-3	"Function name" from the list presented in Section 3.1.2.8.1.1
4	" /"
5-7	"day" of the date/time group for the message
8	" /"
9-12	"time" of the date/time group for the message
13	blank
14-28	"Message source" for the message (e.g. CRP)
29-end of card or cards	"Message content"

Message content is presented in the following format:

Message name:data value:data value:....:data value:

Each data field is separated by a colon and blank fields (i.e. fields that are not to be used to update system files) are indicated by a double colon (::) or repeated colons for the blank fields. Data values are entered in the order specified for the Input Message format (Section 3.1.2.2-Input Processing Function). Messages are stored in the file in chronological order as they would be received in a live environment.

3.1.2.8.2 Destination and Type of Outputs

3.1.2.8.2.1 Working Simulation file

This file contains a subset of the messages in the Master Simulation File. In transferring messages from the Master Simulation File to the Working Simulation File, the time tag is retained, but the function name is not. The message entries in the working file are thus identical in format to those in the master file except for the omission of the function name. The messages selected for storage in the Working Simulation File are those which satisfy the function and time criteria given in the Exercisable Function cards (Section 3.1.2.8.1.1).

3.1.2.8.2.2 Printed Outputs

3.1.2.8.2.2.1 Invalid Request

When an Exercisable Function card contains an error which is detected by the processing, the operator is informed by this printout. It contains the card content as well as the Invalid Request notification (see 3.1.2.8.3.1).

3.1.2.8.2.2.2 Phase I Complete

When the Exercisable Function Cards have been processed, the operator is notified by this printout (see 3.1.2.8.3.1).

3.1.2.8.2.2.3 Simulation Complete

When the processing has finished, the operator is so informed by this printout.

3.1.2.8.3 Information Processing

The processing performed by the Simulation Function is logically divided into two parts: the checking and sorting of the Exercisable Function cards and the building of the Working Simulation File.

3.1.2.8.3.1 Exercisable Function Processing

This portion of the processing accepts the input of Exercisable Function cards, validates the data contained on the cards, and sorts the entries in chronological order. The validated and sorted entries are stored in an Exercisable Function table for use in the building of the Working Simulation File.

The data validation consists of comparing the given function name with a list of legal names (see 3.1.2.8.1.1); verifying that the entries in the time field contain values in the range of 0001 to 2400 inclusive; and checking to ensure that the end time is later than the start time. If any of these checks fail, the content of card in error is printed with a notification that an invalid request has been made. The total card is rejected. If he desires to include the data on the rejected card, the operator must reload the deck and restart the processing from the beginning after correcting the error. When all cards have been processed, the Phase I complete printout is issued (see 3.1.2.8.2.2.2).

3.1.2.8.3.2 Working Simulation File Building

This portion of the processing uses the table which has been constructed from the Exercisable Function cards (see 3.1.2.8.3.1) to determine which messages on the Master Simulation File are to be used in the construction of the Working Simulation File. Each message is read from the Master Simulation File and tested for satisfaction of the criteria specified in the Exercisable Function table. The testing is performed as follows:

- a. If time frames have been specified, the message time is compared to the latest specified time. If the message time is later, the processing is finished. The Simulation complete notification is printed (3.1.2.8.2.2.3) and the function exits; if the message time is within the specified limits, the processing continues.
- b. The function names in the table of Exercisable functions are examined. If the function name "ALL" has been used, the processing uses time as the only criterion for selection (paragraph d. below). If the function name is "ALL" and no time frame has been specified, all messages on the Master Simulation File are transferred to the Working Simulation File, the Simulation complete notification is printed (3.1.2.8.2.2.3) and the function then exits.

- c. The function name in the message is checked against the table of Exercisable Functions to determine whether the message qualifies for inclusion in the Working Simulation File. If the message does not pass this test, it is skipped and the processing goes on to the next message (paragraph a. above). If it does pass the test, the processing goes on to the time check.
- d. The message time is compared to the specified times associated with the applicable function name in the table of Exercisable Functions. If it falls within the allowable limits, the message is stored on the Working Simulation File and the processing goes on to the next message. If the time is not within the allowable times, the message is skipped and the processing goes on to the next message (paragraph a. above).
- e. The processing continues treating each message on the Master Simulation File until all messages have been processed or the latest time specified in the table of Exercisable Functions is exceeded by a message time (see paragraph a. above). When either of these two conditions is met, the function has completed its processing. The Simulation complete notification is printed (see 3.1.2.8.2.2.3) and the function exits.

3.1.3 Data Base Requirements

The purpose of this section is to identify the Tactical Air Control System data required to support TACC Current Operations. An analysis of TACC processing and data requirements, as described in MTR-974 and this specification, has resulted in the data base being comprised of the fifty-one (51) files described herein.

Contents of the seven (7) file categories listed in MTR-974 have been modified and expanded to accommodate the operational data required in the accomplishment of the TACC functions as described in this specification. File names, object names, and property names shown in the files conform to the constraints of the TDSDT System.

Along with these constraints the standard TDSDT System data base terminology has been adopted throughout. A "property" consists of one item of information (e.g. one aircraft type for a designated base). An "object" is a collection of properties all relating to the same base, unit, etc. Objects are the basic collections of data within a file (e.g. an air base file would have one object for each designated base, each object would contain all properties for one base). Complex properties can also be defined in the TDSDT System. A complex property is a collection of properties that are closely related (e.g. date and time) and can be accessed either individually (e.g. time) or as a group (e.g. date/time). Complex properties, called "Masters" have individual property names as do each individual property ("Slave") within the master.

The data base files are structured to show: property number, property name, property type, EBCDIC field size, complex property indicator, start location of slave property, range/values, and descriptions of property. The properties listed are those considered essential to provide the user with sufficient information to make the files useable and meaningful. Property Type identifies the assigned value as either a literal (L) or integer (I) entry. EBCDIC Field Size indicates the maximum number of characters that are legal for a property. The Complex Property Indicator may be used to identify a property as either a master (M) or slave (S) entry. The Slave Property Start Location contains the beginning column number of the slave property. Range/Values entries will show

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The minimum and maximum or exact quantities to be entered or may be left blank; those left blank are considered to be self-explanatory. Remarks/Description entries define abbreviations, offer an explanation of the entry or, in the case of the entry being self-explanatory, are left blank.

The file name, short title (the TDSDT System file name) object name and maximum number of objects appears on the first page of each file.

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3.1.3.1 FILE NAME: Aircraft Characteristics
 SHORT TITLE: ACFTCHAR
 OBJECT: ORD-WT A/C-TYPE
 MAXIMUM NUMBER OF OBJECTS: 16
 PAGE 1 OF 1

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	10	M	1	5									
2	ORD-WT	L	4	S											
3	A/C-TYPE	L	6	S											
4	PPH	I	4												
5	SPD	I	3												
6	TOTAL-FUEL	I	5												
7	REMARKS	T	255												

Weight of external ordnance
 Aircraft type: Ex: F4E, F105D
 Pounds Per Hour of fuel consumed
 Speed in knots
 Total usable fuel in pounds. Ex: 13600

NOTE: Number of objects in this file is based on 7 objects each for 2 different fighters and 1 object each for RECCE and EW.

3.1.3.3

FILE NAME: Air Defense Frag Order

SHORT TITLE: ADFRAG

OBJECT: UNIT

MAXIMUM NUMBER OF OBJECTS: 8

PAGE 1 OF 2

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE			EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
		PROPERTY TYPE	PROPERTY TYPE	PROPERTY TYPE					
1	NAME	L	6	M				Unit designator. Ex: 496TFS	
2	UNIT	L	6	S		1		Enter 'X' when frag order is to be transmitted	
3	TRANSMIT	L	1					Mission number of first mission. Ex: 496-105-AD01	
4	FIRST-MSN	L	12					Mission number of last mission. Ex: 496-105-AD09	
5	LAST-MSN	L	12					Call sign of first mission. Ex: BLUEBOY01	
6	FIRST-C/S	L	15					Call sign of last mission. Ex: BLUEBOY18	
7	LAST-C/S	L	15					Mission type 'AD'	
8	MSN-TYPE	L	2					Aircraft type. Ex: F48	
9	A/C-TYPE	L	6					Number of aircraft assigned to air defense	
10	NUM-A/C	I	2					Ordnance code. Ex: A-12, B-22	
11	ORD-CODE	L	4					Duration of alert. Ex: 71105/0800-1600	
12	DURATION	L	15	M					
13	DATE -1	L	5	S		1			
14	TIME -1	L	4	S		7			
15	TIME -2	L	4	S		12			
16	ALERT-TYPE	L	6					Enter 'Ground' or 'Air'	
17	CAP-POINT	L	12					Enter lat/long of cap point	
18	DEP-BASE	L	4					Enter departure base identifier. Ex: KGR7	

3.1.3.4 FILE NAME: Airfield and Flight Facility Status
 SHORT TITLE: AFLD/FLTFAC
 OBJECT: BASE
 MAXIMUM NUMBER OF OBJECTS: 8
 PAGE 1 OF 4

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	4	M			
2	BASE	L	4	S	1	Base Designator. Ex: RKOS	
3	AS-OF-TIME	L	10	M		Status as-of-time	
4	DATE	L	5	S	1		
5	TIME	L	4	S	7		
6	BASE-STAT	L	11			Enter 'operational', 'limited', or 'closed'	
7	REA	L	50			Reason(s) for status being 'limited' or 'closed'	
						Ex: RUNWAY(S) CRATERED, POWER OUTAGE	
						Specific limitation for the base	
8	OP-LIMIT	L	20			Estimated time return to operational status for the base	
9	ETRO-BASE	L	10	M			
10	DATE-1	L	5	S	1		
11	TIME-1	L	4	S	7		
12	FAC-NAME-1	L	15			Flight facility name. Ex: MPN-15 M/RAPCON	
13	STATUS-1	L	12			Unrestricted, restricted, unusable	
14	REA-1	L	20			Power outage, damaged (battle, wind, water) parts (maint or supply)	
15	OPNL-LIMIT-1	L	26			Operational limitation. Ex: no precision approaches	
16	ETRO-FAC-1	L	10	M		Estimated time return to operational status for the facility	
17	DATE-2	L	5	S	1		
18	TIME-2	L	4	S	7		
19	FAC-NAME-2	L	15			Flight facility name	

3.1.3.3 (Cont'd) FILE NAME: Airfield and Flight Facility Status

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION			
20	STATUS-2	L					Unrestricted, restricted, unusable
21	REA-2	L					Power outage, damaged (battle, wind, water) parts (maint or supply)
22	OPNL-LIMIT-2	L					Operational limitation. Ex: no precision approaches
23	ETRO-FAC-2	L	M				Estimated time return to operational status for the facility
24	DATE-3	L	S		1		
25	TIME-3	L	S		7		Flight facility name.
26	FAC-NAME-3	L					Unrestricted, restricted, unusable
27	STATUS-3	L					Power outage, damaged (battle, wind, water) parts (maint or supply)
28	REA-3	L					Operational limitation. Ex: no precision approaches
29	OPNL-LIMIT-3	L					Estimated time return to operational status for the facility
30	ETRO-FAC-3	L	M				
31	DATE-4	L	S		1		
32	TIME-4	L	S		7		Flight facility name.
33	FAC-NAME-4	L					Unrestricted, restricted, unusable
34	STATUS-4	L					Power outage, damaged (battle, wind, water) parts (maint or supply)
35	REA-4	L					Operational limitation. Ex: no precision approaches
36	OPNL-LIMIT-4	L					Estimated time return to operational status for the facility
37	ETRO-FAC-4	L	M				
38	DATE-5	L	S		1		
39	TIME-5	L	S		7		

3.1.3.4 (Cont'd) FILE NAME: Airfield and Flight Facility Status

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
40	FAC-NAME-5	L	15				Flight facility name.	
41	STATUS-5	L	12				Unrestricted, restricted, unusable	
42	REA-5	L	20				Power outage, damaged (battle, wind, water) parts (maint or supply)	
43	OPNL-LIMIT-5	L	26				Operational limitation. Ex: no precision approaches	
44	ETRO-FAC-5	L	10	M			Estimated time return to operational status for the facility	
45	DATE-6	L	5	S	1			
46	TIME-6	L	4	S	7			
47	FAC-NAME-6	L	15				Flight facility name.	
48	STATUS-6	L	12				Unrestricted, restricted, unusable	
49	REA-6	L	20				Power outage, damaged (battle, wind, water) parts (maint or supply)	
50	OPNL-LIMIT-6	L	26				Operational limitation. Ex: no precision approaches	
51	ETRO-FAC-6	L	10	M			Estimated time return to operational status for the facility	
52	DATE-7	L	5	S	1			
53	TIME-7	L	4	S	7			
54	FAC-NAME-7	L	15				Flight facility name.	
55	STATUS-7	L	12				Unrestricted, restricted, unusable	
56	REA-7	L	20				Power outage, damaged (battle, wind, water) parts (maint or supply)	
57	OPNL-LIMIT-7	L	26				Operational limitation. Ex: no precision approaches	
58	ETRO-FAC-7	L	10	M			Estimated time return to operational status for the facility	
59	DATE-8	L	5	S	1			
60	TIME-8	L	4	S	7			

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3.1.34 (Cont'd)

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDCIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
61	FAC-NAME-8	L	15				Flight facility name.
62	STATUS-8	L	12				Unrestricted, restricted, unusable
63	REA-8	L	20				Power outage, damaged (battle, wind, water) parts (maint or supply)
64	OPNL-LIMIT-8	L	26				Operational limitation. Ex: no precision approaches
65	ETRO-FAC-8	L	10	M			Estimated time return to operational status for the facility
66	DATE-9	L	5	S	1		
67	TIME-9	L	4	S	7		

3.1.3.5 FILE NAME: Air Refueling Mission Schedule

SHORT TITLE: REFUELSCHED

OBJECT: MSN-NUM

MAXIMUM NUMBER OF OBJECTS: 12

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	2	1	3	2	4	3	5	4	6	5	7	6	8	7
1	NAME	L	12	M										Tanker mission number. Ex: 077-105-AR01	
2	MSN-NUM	L	12	S										Unit number. Ex: 077	
3	UNIT	L	3	S										Julian day. Ex: 105	
4	DAY	L	3	S										Type mission. Ex: AR	
5	MSN-TYPE	L	2	S										Sequence number. Ex: 01	
6	SEQ-NUM	L	2	S										Sequence call sign	
7	C/S	L	15											Sequence refueling frequency	
8	REFUEL-FREQ	L	5											Total fuel on tanker in units of 100's of pounds	
9	TOTAL-FUEL	I	6											Unscheduled fuel on tanker in units of 100's of pounds	
10	UNSCHED-FUEL	I	6											Scheduled time on station	
11	SCHED-ON-STA	L	10	M											
12	DATE-1	L	5	S										Actual time on station	
13	TIME-1	L	4	S											
14	ACT-ON-STA	L	10	M										Scheduled time off station	
15	DATE-2	L	5	S											
16	TIME-2	L	4	S											
17	SCHED-OFF-STA	L	10	M											
18	DATE-3	L	5	S											
19	TIME-3	L	4	S										Total sorties to be refueled. Ex: 10	
20	TOTAL-SORT	I	2												

+ OR - DDDDD

3.1.3.5 (Cont'd) FILE NAME: Air Refueling Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

PAGE 2 OF 4

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
21	REFUEL-AREA	L	6			Refueling area. Ex: ALPHA	
22	5-MIN-01	L	12			Mission number for first refueling block	
23	5-MIN-02	L	12			Mission number for second refueling block	
24	5-MIN-03	L	12			Mission number for third refueling block	
25	5-MIN-04	L	12			Mission number for fourth refueling block	
26	5-MIN-05	L	12			Mission number for fifth refueling block	
27	5-MIN-06	L	12			Mission number for sixth refueling block	
28	5-MIN-07	L	12			Mission number for seventh refueling block	
29	5-MIN-08	L	12			Mission number for eighth refueling block	
30	5-MIN-09	L	12			Mission number for ninth refueling block	
31	5-MIN-10	L	12			Mission number for tenth refueling block	
32	5-MIN-11	L	12			Mission number for eleventh refueling block	
33	5-MIN-12	L	12			Mission number for twelfth refueling block	
34	5-MIN-13	L	12			Mission number for thirteenth refueling block	
35	5-MIN-14	L	12			Mission number for fourteenth refueling block	
36	5-MIN-15	L	12			Mission number for fifteenth refueling block	
37	5-MIN-16	L	12			Mission number for sixteenth refueling block	
38	5-MIN-17	L	12			Mission number for seventeenth refueling block	
39	5-MIN-18	L	12			Mission number for eighteenth refueling block	
40	5-MIN-19	L	12			Mission number for nineteenth refueling block	

3.1.3.5 (Cont'd) FILE NAME: Air Refueling Mission Schedule

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
41	5-MIN-20	L	12				Mission number for twentieth refueling block
42	5-MIN-21	L	12				Mission number for twenty-first refueling block
43	5-MIN-22	L	12				Mission number for twenty-second refueling block
44	5-MIN-23	L	12				Mission number for twenty-third refueling block
45	5-MIN-24	L	12				Mission number for twenty-fourth refueling block
46	SUP-MSN-01	L	12				Mission number of mission to be refueled
47	SUP-FUEL-01	I	5				Amount of fuel required in pounds
48	SUP-MSN-02	L	12				Mission number of mission to be refueled
49	SUP-FUEL-02	I	5				Amount of fuel required in pounds
50	SUP-MSN-03	L	12				Mission number of mission to be refueled
51	SUP-FUEL-03	I	5				Amount of fuel required in pounds
52	SUP-MSN-04	L	12				Mission number of mission to be refueled
53	SUP-FUEL-04	I	5				Amount of fuel required in pounds
54	SUP-MSN-05	L	12				Mission number of mission to be refueled
55	SUP-FUEL-05	I	5				Amount of fuel required in pounds
56	SUP-MSN-06	L	12				Mission number of mission to be refueled
57	SUP-FUEL-06	I	5				Amount of fuel required in pounds
58	SUP-MSN-07	L	12				Mission number of mission to be refueled
59	SUP-FUEL-07	I	5				Amount of fuel required in pounds

3.1.3.5 (Cont'd) FILE NAME: Air Refueling Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
60	SUP-MSN-08	L	12				Mission number of mission to be refueled
61	SUP-FUEL-08	I	5				Amount of fuel required in pounds
62	SUP-MSN-09	L	12				Mission number of mission to be refueled
63	SUP-FUEL-09	I	5				Amount of fuel required in pounds
64	SUP-MSN-10	L	12				Mission number of mission to be refueled
65	SUP-FUEL-10	I	5				Amount of fuel required in pounds
66	STATUS	L	1		A,C,D		A-ACTIVE (T.O. REPORT RECEIVED), C-COMplete (LAND REPORT RECEIVED), D-DELETED

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3.1.3.6

FILE NAME:	Base/Control Agency
SHORT TITLE:	BASE/CONTROL
OBJECT:	BASE

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	4	M			
2	BASE	L	4	S	1		Base identifier. Ex: RKSW
3	CTRL-AGENCY	L	15				Call sign of control agency. Ex: TROUT
4	CTRL-FREQ	L	5				Frequency of control agency. Ex: 324.6

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3.1.3.7
FILE NAME: Command Guidance
SHORT TITLE: COMMGUID
OBJECT: NAME
MAXIMUM NUMBER OF OBJECTS: 1
PAGE 1 OF 1

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	8				Percent of force directed to interdiction
2	INTD	I	2				Percent of force directed to counter air
3	CAIR	I	2				Percent of force directed to air defense
4	ADEF	I	2				Percent of force directed to preplanned CAS
5	PCAS	I	2				Percent of force directed to immediate CAS
6	ICAS	I	2				Percent of force directed to CAP/ESCORT
7	CAPE	I	2				Total fighter directed should equal 100%
8	TOTAL-FTR	I	3				Percent of force directed to preplanned RECCE
9	PREC	I	2				Percent of force directed to immediate RECCE
10	IREC	I	2				Total RECCE directed should equal 100%
11	TOTAL-RECCE	I	3				

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3.1.1.3.8 FILE NAME: Delta T
SHORT TITLE: DELTA-T
OBJECT: SCHED
MAXIMUM NUMBER OF OBJECTS: 7
PAGE 1 OF 1

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	2	3	4	5	6	7	8	9	10	11	12	13	14	15
1	NAME	L	L	I	I	I	I	I	I	I	I				
2	SCHED	L	L	I	I	I	I	I	I	I	I				
3	DTD	I	I	I	I	I	I	I	I	I	I				
4	DTOT-F	I	I	I	I	I	I	I	I	I	I				
5	DTOT-R	I	I	I	I	I	I	I	I	I	I				
6	DTR	I	I	I	I	I	I	I	I	I	I				
7	DTOS	I	I	I	I	I	I	I	I	I	I				
8	DSAR	I	I	I	I	I	I	I	I	I	I				

Name of schedule file being monitored
Time allowance for takeoff (minutes)
Time allowance for fighter inflight
Time allowance for RECCE inflight
Time allowance for landing inflight
Time allowance for tanker on station
Time allowance for SAR pickup

Note: New file. Number of objects is based on
7 monitored files: PFTR, PRECCE,
ICAS, IRECE, EW, SAR, and TANKER

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3.1.3.9 (Cont'd) FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE		EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
		PROPERTY TYPE	PROPERTY NAME					
20	OFFSET-IN	L	12					
21	OFFSET-IN-TI	L	10	M				Location of offset point for ingress, lat/long
22	DATE-2	L	5	S	1			Time at offset point for ingress. Ex: 71103/0800
23	TIME-2	L	4	S	7			
24	INGRESS	L	12					Ingress point in lat/long
25	INGRESS-TIME	L	10	M				Ex: 71103/0810
26	DATE-3	L	5	S	1			
27	TIME-3	L	4	S	7			
28	ORBIT-PT	L	12					Orbit point in lat/long
29	DURATION	L	15	M				Duration of time on station. Ex: 71103/0830-1130
30	DATE-4	L	5	S	1			
31	TIME-4	L	4	S	7			
32	TIME-5	L	4	S	12			
33	TYPE-SUPP	L	7					Type of EW support required. Degradation of: AAA, SAM, EW (Early Warning), GCI, or combination: SAM/AAA
34	TGT-LOC-A	L	12					Locates a point target or starting point.
35	TGT-LOC-B	L	12					When used in conjunction with 'A', provides a route; if '40' is utilized, describes a target.
36	TGT-LOC-C	L	12					When used in conjunction with 'A' and 'B', provides a route; if '40' is utilized, describes a target.

3.1.3.9 (Cont'd) FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

PAGE 3 OF 7

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
37	TGT-LOC-D	L	12				When used in conjunction with 'A' through 'C', provides a route; if '40' is utilized, describes a target.
38	TGT-LOC-E	L	12				When used in conjunction with 'A' through 'D', provides a route; if '40' is utilized, describes a target.
39	TGT-LOC-F	L	12				When used in conjunction with 'A' through 'E', provides a route; if '40' is utilized, describes a target.
40	AREA	L	15				When utilized in conjunction with properties 34-39, will describe a target area. Oval, Square, Round, etc.
41	RECALL	L	10				Recall word
42	EGRESS	L	12				Egress point in lat/long
43	EGRESS-TIME	L	10	M			Ex: 71103/1145
44	DATE-6	L	5	S	1		
45	TIME-6	L	4	S	7		
46	OFFSET-EG	L	12				Location of offset point for egress, lat/long
47	OFFSET-EG-TI	L	10	M			Time at offset point for egress. Ex: 71103/1155
48	DATE-7	L	5	S	1		
49	TIME-7	L	4	S	7		
50	RECOV-BASE	L	4				Recovery base identifier. Ex: RKOS
51	RECOV-LOC	L	12				Recovery base location - LAT/LONG
52	PRE-FUEL-AR	L	6				Prestrike refueling area designator. Ex: ALPHA
53	PRE-FUEL-CP	L	12				Prestrike refueling area control point - LAT/LONG

3.1.3.9 (Cont'd) FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER			PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
54	PRE-FUEL-TI	L	10		M									Prestrike refueling time - Scheduled		
55	DATE- 8	L	5		S	1										
56	TIME-8	L	4		S	7										
57	PRE-FUEL-PD	I	5													Prestrike refueling required in pounds of fuel.
58	PRE-FUEL-TK	L	15													Prestrike refueling tanker call sign
59	PRE-FUEL-FR	L	5													Prestrike refueling tanker frequency
60	PRE-FUEL-MS	L	12													Mission number of prestrike refueling tanker
61	POST-FUEL-AR	L	6													Post strike refueling area designator. Ex: ALPHA
62	POST-FUEL-CP	L	12													Post strike refueling area control point - LAT/LONG
63	POST-FUEL-TI	L	10		M											Post strike refueling time - Scheduled
64	DATE-9	L	5		S	1										
65	TIME-9	L	4		S	7										
66	POST-FUEL-PD	I	5													Post strike refueling required in pounds of fuel
67	POST-FUEL-TK	L	15													Post strike refueling tanker call sign
68	POST-FUEL-FR	L	5													Post strike refueling tanker frequency. Ex: 323.6
69	POST-FUEL-MS	L	12													Mission number of post strike refueling tanker
70	SUP-MSN-1	L	12													Mission number of supported mission
71	SUP-MSN-2	L	12													Mission number of supported mission
72	SUP-MSN-3	L	12													Mission number of supported mission
73	SUP-MSN-4	L	12													Mission number of supported mission

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3.1.3.9 (Cont'd) FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

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OBJECT: MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
74	SUP-MSN-5	L	12									Mission number of supported mission			
75	REMARKS-1	T	58									Any amplifying data required			
76	ETD	L	10	M								Estimated time of departure			
77	DATE-10	L	5	S				1							
78	TIME-10	L	4	S				7							
79	ATD	L	10	M								Actual time of departure			
80	DATE-11	L	5	S				1							
81	TIME-11	L	4	S				7							
82	A/C-A/B	I	2									Number of mission aircraft airborne			
83	ABORT-A/C	I	2									Number of mission aircraft aborted			
84	ABORT-LAND	L	10	M								Aborted aircraft landing time			
85	DATE-12	L	5	S				1							
86	TIME-12	L	4	S				7							
87	ABORT-LOC	L	4									Location of aborted aircraft - base designator			
88	ABORT-REA	L	5									Abort reason. Ex: MAINT, WX, OPS			
89	PRE-FUEL	I	5									Actual prestrike fuel onboard in pounds			
90	ETOO	L	10	M								Estimated time on orbit			
91	DATE-13	L	5	S				1							
92	TIME-13	L	4	S				7							
93	ATOO	L	10	M								Actual time on orbit			

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3.1.3.9 (Cont'd) FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
94	DATE-14	L	5	S	1		
95	TIME-14	L	4	S	7		
96	POST-FUEL	I	5				Actual post strike fuel onloaded in pounds
97	ETR	L	10	M			Estimated time of return
98	DATE-15	L	5	S	1		
99	TIME-15	L	4	S	7		
100	ATR	L	10	M			Actual time of return
101	DATE-16	L	5	S	1		
102	TIME-16	L	4	S	7		
103	A/C-NO-RET	I	2				Number of aircraft that did not return
104	NO-RET-C/S	L	18				Call sign of aircraft not returned. Ex: GUNSHOE 04
105	REA-NO-RET	L	15				Reason aircraft did not return, if known
106	LOC-DOWN	L	12				Location down, if known
107	MSN-RESULT	L	25				Mission results. Ex: SUCCESSFUL, UNSUCCESSFUL, etc.
108	REMARKS-2	T	58				Any amplifying data
109	OFFSET-IN-CD	L	3				Offset Point-Ingress Code. Ex: AAO, BBO
110	INGRESS-CD	L	2				Ingress Point Code Ex: AA,BB
111	EGRESS-CD	L	2				Egress Point Code Ex: WA,WB
112	OFFSET-EG-CD	L	3				Offset Point-Egress Code. Ex: WAO,WBO
113	BLANK	L	2				To facilitate programming

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FILE NAME: Electronic Warfare Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
114	PRE-FUEL-AT	L	10	M	1		Prestrike refueling time - Actual
115	DATE-17	L	5	S	7		
116	TIME-17	L	4	S			
117	POST-FUEL-AT	L	10	M	1		Poststrike refueling time - Actual
118	DATE-18	L	5	S	7		
119	TIME-18	L	4	S			

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3.1.3.10

MAXIMUM NUMBER OF OBJECTS: 20

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE	EBDCIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	6	M	S	1		Unit designator. Ex: 325TFS	
2	UNIT	L	6					4 letter station identifier/H or D, H-home, D-dispersed	
3	BASE	L	6					Type, model, series, EX: F105D	
4	A/C-TYPE	L	6					Interdiction sorties assigned	
5	INTD	I	2					Counter air sorties assigned	
6	CAIR	I	2					Air defense sorties assigned	
7	ADEF	I	2					Preplanned close air support sorties assigned	
8	PCAS	I	2					Immediate close air support sorties assigned	
9	ICAS	I	2					Combat air patrol/escort sorties assigned	
10	CAPE	I	2					Total sorties assigned	
11	TOTAL	I	3						

Note: This file reflects sorties assigned to 8 fighter squadrons.
The number of objects supports each squadron at its home base and one dispersal base. The additional objects are for padding and a grand total entry.

3.1.3.11 (Cont'd) FILE NAME: Immediate Close Air Support Frag Order

SHORT TITLE:

OBJECT: PAGE 2 OF 2

MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
20	ORD-CODE	L		L	4									Ordinance code. Ex: A-22, B-13 To facilitate programming Note: Number of objects is based on 8 fighter squadrons. NAME IS (UNIT)/. Ex: 110/	
21	BLANK	L		L	2										

3.1.3.12 (Cont'd) FILE NAME: Immediate Close Air Support Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		ERDCIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
17	TGT-LOC-F	L	12											When used in conjunction with 'A' through 'E', provides a route; if 'AREA' is utilized, describes a target.	
18	AREA	L	15											When utilized in conjunction with items A-F, will describe a target area. Oval, square, round, etc.	
19	TGT-ELEV	I	5											Target elevation	
20	TGT-TYPE	L	15											Target type	
21	ORD	L	4											Ordinance	
22	FIN-CTR-C/S	L	15											Final control call sign	
23	FIN-CTR-FREQ	L	11											Final control frequency-primary and secondary	
24	CON-POINT	L	12											Control point coordinates	
25	ETD	L	10	M										Estimated time of departure	
26	DATE-1	L	5	S	1										
27	TIME-1	L	4	S	7										
28	ATD	L	10	M										Actual time of departure	
29	DATE-2	L	5	S	1										
30	TIME-2	L	4	S	7										
31	A/C-A/B	I	2											Number of aircraft airborne	
32	ABORT-A/C	I	2											Number of aircraft aborted	
33	ABORT-LAND	L	10	M										Aborted aircraft landing time	
34	DATE-3	L	5	S	1										

3.1.3.2 (cont'd) FILE NAME: Immediate Close Air Support Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
35	TIME-3	L	4	S	7		
36	ABORT-LOC	L	4				Location of abort aircraft - base designator
37	ABORT-REA	L	5				Abort reason. Ex: MAINT, OPS, WX
38	ETOT	L	10	M			Estimated time on target
39	DATE-4	L	5	S	1		
40	TIME-4	L	4	S	7		Actual time on target
41	ATOT	L	10	M			
42	DATE-5	L	5	S	1		
43	TIME-5	L	4	S	7		Estimated time of return
44	EVR	L	10	M			
45	DATE-6	L	5	S	1		
46	TIME-6	L	4	S	7		Actual time of return
47	ATR	L	10	M			
48	DATE-7	L	5	S	1		
49	TIME-7	L	4	S	7		
50	A/C-NO-RET	I	2				Number of aircraft not returned
51	NO-RET-C/S	L	18				Call sign of aircraft not returned
52	REA-NO-RET	L	15				Reason aircraft did not return. Ex: AAA, GROUND FIRE, MIG

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3.1.3.12 (Cont'd) FILE NAME: Immediate Close Air Support Mission Schedule

SHORT TITLE:

OBJECT: MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
53	LOC-DOWN	L	12				Location of downed aircraft (lat/long)
54	MSN-RESULT	L	25				Mission results. Ex: SUCCESSFUL, UNSUCCESSFUL, ALL ORDNANCE ON TARGET.
55	REMARKS	T	58				Any amplifying data
56	STATUS	L	1				A-Active (T.O. Report Received), C-Complete (Land Report Received), D-Deleted
57	BLANK	L	2				To facilitate programming
58	DEP-BASE	L	4				Departure Base
59	RECOV-BASE	L	4				Recovery Base
					A,C,D		

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3.1.3.13

FILE NAME: Immediate Reconnaissance Frag Order

SHORT TITLE: IRECFRAG

OBJECT: UNIT

MAXIMUM NUMBER OF OBJECTS: 1

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	4	M	1								Unit number. Ex: 555		
2	UNIT	L	3	S									Unit type. Ex: TRS		
3	TYPE	L	3										Enter 'X' when frag order is to be transmitted		
4	TRANSMIT	L	1										Mission number of first mission. Ex: 555-105-IR01		
5	FIRST-MSN	L	12										Mission number of last mission. Ex: 555-105-IR09		
6	LAST-MSN	L	12										Call sign of first mission		
7	FIRST-C/S	L	15										Call sign of last mission		
8	LAST-C/S	L	15										Mission type, 'IR'		
9	MSN-TYPE	L	2										Aircraft type. Ex: RF4E		
10	A/C-TYPE	L	6										Number of sorties assigned to IRECE		
11	SORT	I	2										Duration of alert. Ex: 71105/0800-1600		
12	DURATION	L	15	M	1										
13	DATE-1	L	5	S	7										
14	TIME-1	L	4	S											
15	TIME-2	L	4	S	12										
16	DEP-BASE	L	4										Enter departure base identifier. Ex: KKOS		
17	CTRL-AGENCY	L	15										Call sign of control agency		
18	CTRL-FREQ	L	5										Frequency of control agency. Ex: 232.6		
19	SORT-SCRAM	I	2										Number of sorties scrambled		
20	BLANK	L	2										To facilitate programming		
													NOTE: NAME IS (UNIT)/. Ex: 555/		

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S.A.3.14 (Rev. 1) FILE NAME: Immediate Reconnaissance Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER			PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
16	TGT-LOC-E	L	12													When used in conjunction with 'A' through 'D', provides a route; if 'AREA' is utilized, describes a target.
17	TGT-LOC-F	L	12													When used in conjunction with 'A' through 'E', provides a route; if 'AREA' is utilized, describes a target.
18	AREA	L	15													When utilized in conjunction with items A-F, will describe a target area. Oval, square, round, etc.
19	TGT-ELEV	I	5													Target elevation
20	TGT-TYPE	L	15													Target type
21	TYPE-RECCE	L	23													Type of RECCE
22	LTIOV	L	10		M											Latest Time Information is Of Value
23	DATE-1	L	5		S											
24	TIME-1	L	4		S											
25	ETD	L	10		M											Estimated time of departure
26	DATE-2	L	5		S											
27	TIME-2	L	4		S											
28	ATD	L	10		M											Actual time of departure
29	DATE-3	L	5		S											
30	TIME-3	L	4		S											
31	A/C-A/B	I	2													Number of aircraft airborne
32	ABORT-A/C	I	2													Number of aircraft aborted
33	ABORT-LAND	L	10		M											Aborted aircraft landing time

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3.1.3.14 (Cont'd) FILE NAME: Immediate Reconnaissance Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
34	DATE-4	L	5	S	1		
35	TIME-4	L	4	S	7		
36	ABORT-LOC	L	4				Location of aborted aircraft. Base designator
37	ABORT-REA	L	5				Abort reason
38	ETOT	L	10	M			Estimated time on target
39	DATE-5	L	5	S	1		
40	TIME-5	L	4	S	7		
41	ATOT	L	10	M			Actual time on target
42	DATE-6	L	5	S	1		
43	TIME-6	L	4	S	7		
44	ETR	L	10	M			Estimated time of return
45	DATE-7	L	5	S	1		
46	TIME-7	L	4	S	7		
47	ATR	L	10	M			Actual time of return
48	DATE-8	L	5	S	1		
49	TIME-8	L	4	S	7		
50	A/C-NO-RET	I	2				Number of aircraft not returned
51	NO-RET-C/S	L	18				Call sign of aircraft not returned
52	REA-NO-RET	L	15				Reason aircraft did not return
53	LOC-DOWN	L	12				Location of downed aircraft (lat/long)

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3.1.3.14 (Cont'd) FILE NAME: Immediate Reconnaissance Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
54	IN-REP-IND	L	1				Enter 'X' if inflight report is required
55	IN-REP-REQ	L	10	M			Time requestor received inflight report
56	DATE-9	L	5	S	1		
57	TIME-9	L	4	S	7		
58	PI-REQ	L	1				Enter "X" if photo interpreter report is required
59	PI-REQ-TI	L	10	M			Time requestor received PI report
60	DATE-10	L	5	S	1		
61	TIME-10	L	4	S	7		
62	PROD-DEL-T1	L	10	M			Product delivery time
63	DATE-11	L	5	S	1		
64	TIME-11	L	4	S	7		
65	REMARKS	T	58				Any amplifying data
66	STATUS	L	1		A,C,D		A-Active (T.O. Report Received), C-Complete (Land Report Received), D-Deleted
67	BLANK	L	2				To facilitate programming
68	DEF-BASE	L	4				Departure Base
69	RECOV-BASE	L	4				Recovery Base

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FILE NAME: Monitoring Alerts

SHORT TITLE: MONITALERTS

OBJECT: ALERT-NUM

MAXIMUM NUMBER OF OBJECTS: 20

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	4	M											
2	ALERT-NUM	L	2	S											
3	OBJECT-ID	L	12												
4	TO	L	4												
5	VAR-1	L	12												
6	VAR-2	L	12												
7	VAR-3	L	15												

Alert display identification
 Name of object associated with alert
 Functional addressee
 } Amplifying data to define condition causing alert

NOTE: Value for name is set to two digits and two programming characters.

3.1.3.19 FILE NAME: Ordnance Code
SHORT TITLE: ORDCODE
OBJECT: ORD-CODE
MAXIMUM NUMBER OF OBJECTS: 60
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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	NAME	L	L	L	L	L	L	L	L	L	L				
2	ORD-CODE	L	L	L	L	L	L	L	L	L	L				
3	TYPE-1	L	L	L	L	L	L	L	L	L	L				
4	QUAN-1	I	I	I	I	I	I	I	I	I	I				
5	TYPE-2	L	L	L	L	L	L	L	L	L	L				
6	QUAN-2	I	I	I	I	I	I	I	I	I	I				
7	TYPE-3	L	L	L	L	L	L	L	L	L	L				
8	QUAN-3	I	I	I	I	I	I	I	I	I	I				
9	TYPE-4	L	L	L	L	L	L	L	L	L	L				
10	QUAN-4	I	I	I	I	I	I	I	I	I	I				
11	WT	I	I	I	I	I	I	I	I	I	I				
12	A/C-TYPE	L	L	L	L	L	L	L	L	L	L				
												Enter ordnance code. Ex: A-12, B-22, etc. Type of munitions. Ex: AGM-128 BULLPUP Number of rounds in listed ORDCODE			
												Total weight of all munitions specified for listed ORDCODE Aircraft type corresponding to ORDCODE			
												NOTE: Ordnance codes with 'A' prefix are P4E loads and 'B' prefix are F105D loads			

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	4	M											
2	SEQ-NUM	L	2	S	1										
3	TO	L	6												
4	FROM	L	6												
5	SUBJECT	L	4												
6	DATA	T	850												

NOTE: Value for name is set to two digits and two programming characters

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3.1.3.21 FILE NAME: Preplanned Close Air Support Request

SHORT TITLE: PCASREQUEST

OBJECT: REQ-NUM

MAXIMUM NUMBER OF OBJECTS: 30

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	5	M	1										
2	REQ-NUM	L	5	S	1										Originator's request number. EX: AA-02
3	TIME-SENDER	L	15	M											Julian date/time and sender designator
4	DATE-1	L	5	S	1										
5	TIME-1	L	4	S	7										
6	SENDER	L	4	S	12										
7	IMMED	L	1												Enter one of the following values: A-Emergency, B-Urgent, C-Ordinary, D-Search/Attack
8	PREPLAN	L	1												Enter one of the following values: A-Specific TOT, B-Airborne Alert, C-Ground Alert, D-Column Cover, E-ASRT, F-Armed RECON
9	PRI	I	1												Originator's assigned priority for preplanned
10	TAC-SIT	L	1												Enter one of the following values: A-Under Fire, B-No Contact
11	TYPE-FIRE	L	20												Enter one of the following values: Heavy (Type), Moderate (Type), Light (Type), None. EX: MODERATE-SMALL ARMS
12	TGT	L	15												Describes the type of target to be attacked (A-P). Other (Q) provides for any target not already described.
13	TGT-PARAM	L	8												<p> A=PERS IN-OPEN B=PERS DUG-IN C=PERS CONCEALED D=WPNS (MG/RR/AT) E=MOTARS F=ARTILLERY G=ARMOR H=VEHICLES I=ROCKETS/MISSILES J=SUPPLIES/EQUIP K=CENTER (CP COMM) L=BUILDINGS M=BRIDGES N=AAA O=PILL BOX P=BUNKER </p> Indicates the approximate size and/or strength of the target as described in property 4.

FILE NAME: Preplanned Close Air Support Request

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

PAGE 2 OF 6

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
13	TGT-PARAM (Cont'd)					A=UNKNOWN E=10-25 I=250-500	D=5-9 H=100-250
14	TGT-LOC-A	L	12			B=1 C=2-4 G=50-100 J=500-1000	Locates a point target or starting point by using Lat/Long.
15	TGT-LOC-B	L	12				B. When used in conjunction with 'A', provides a route; if '20' is utilized, describes a target.
16	TGT-LOC-C	L	12				C. When used in conjunction with 'A' and 'B', provides a route; if '20' is utilized, describes a target.
17	TGT-LOC-D	L	12				D. When used in conjunction with 'A' through 'C', provides a route; if '20' is utilized, describes a target.
18	TGT-LOC-E	L	12				E. When used in conjunction with 'A' through 'D', provides a route; if '20' is utilized, describes a target.
19	TGT-LOC-F	L	12				F. When used in conjunction with 'A' through 'E', provides a route; if '20' is utilized, describes a target.
20	CHART-NUM	L	20				Chart number
21	AREA	L	15				When utilized in conjunction with items 13-18, will describe a target area. Oval, square, round, etc.
22	ELEVATION	L	5				Highest elevation within the target area in feet (MSL)
23	TGT-BEAR-DIS	L	20				Magnetic bearing and distance in meters from a prominent land mark. EX: 275-800-RIVER
24	TGT-MOB	L	1		A,B		Target mobility- A-stationary, B-moving

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3.1.3.21 (Cont'd) FILE NAME: Preplanned Close Air Support Request

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
25	TGT-DIR/SPD	L	5							LL/DD		Target direction/speed. Ex: NW/20			
26	TGT-TIME	L	1									Time air strike is requested			
27	DTG-1	L	10			M						A. ASAP			
28	DATE-2	L	5			S		1				B. AT (DATE/TIME)			
29	TIME-2	L	4			S		7				C. AFTER (DATE/TIME)			
30	DTG-2	L	10			M						D. NLT (DATE/TIME)			
31	DATE-3	L	5			S		1				E. BETWEEN (DATE/TIME - DATE/TIME)			
32	TIME-3	L	4			S		7				Julian date and time			
33	DES-RESULTS	L	1									Julian date and time			
34	NUM-A/C	I	2									Desired results. A-Destroy, B-Neutralize			
35	A/C-TYPE	L	6									Number of aircraft recommended			
36	ORD	L	12									Model, type, and series of aircraft recommended			
37	FUZING	L	4									A. BOMB, B. ROCKET, C. STRAFE, D. NAPALM, E. OTHER			
38	FRIEND-POS-A	L	12									Enter recommended fuzing			
39	FRIEND-POS-B	L	12									Lat/long			
40	FRIEND-DIR	L	2									Lat/long			
41	FRIEND-DIS	I	3									Direction of friendlies from target. Ex: N, NW, NE			
												Distance of friendlies from target in meters.			

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3.1.3.21 (Cont'd) FILE NAME: Preplanned Close Air Support Request

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
62	ORD- 1-2	L	4	L	10	M	1	7	Alternate ordnance code assigned to mission #1 Estimated time on target. Julian date/time						
63	ETOT-1	L	10	L	5	S	1	7	Mission number assigned to mission #2 Sorties assigned to mission #2						
64	DATE-4	L	5	L	4	S			Ordnance code assigned to mission #2						
65	TIME-4	L	4	L	12				Alternate ordnance code assigned to mission #2 Estimated time on target. Julian date/time						
66	MSN-2	L	12	L	10	M			Mission number assigned to mission #3 Sorties assigned to mission #3						
67	SORT-2	I	2	L	4	S			Ordnance code assigned to mission #3						
68	ORD-2-1	L	4	L	4				Alternate ordnance code assigned to mission #3 Estimated time on target. Julian date/time						
69	ORD-2-2	L	4	L	5	S	1	7	Mission number assigned to mission #4 Sorties assigned to mission #4						
70	ETOT-2	L	10	L	4	S			Ordnance code assigned to mission #4						
71	DATE-5	L	5	L	12				Alternate ordnance code assigned to mission #4 Estimated time on target. Julian date/time						
72	TIME-5	L	4	L	10	M			Mission number assigned to mission #5 Sorties assigned to mission #5						
73	MSN-3	L	12	L	4	S			Ordnance code assigned to mission #5						
74	SORT-3	I	2	L	4				Alternate ordnance code assigned to mission #5 Estimated time on target. Julian date/time						
75	ORD-3-1	L	4	L	5	S	1	7	Mission number assigned to mission #6 Sorties assigned to mission #6						
76	ORD-3-2	L	4	L	12				Ordnance code assigned to mission #6						
77	ETOT-3	L	10	L	4	M			Alternate ordnance code assigned to mission #6 Estimated time on target. Julian date/time						
78	DATE-6	L	5	L	4	S	1	7	Mission number assigned to mission #7 Sorties assigned to mission #7						
79	TIME-6	L	4	L	12				Ordnance code assigned to mission #7						
80	MSN-4	L	12	L	10	M			Alternate ordnance code assigned to mission #7 Estimated time on target. Julian date/time						
81	SORT-4	I	2	L	4	S			Mission number assigned to mission #8 Sorties assigned to mission #8						

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System Development Corporation
TM-LX-346/600/01

71-3-21 (Rev. 11) FILE NAME: Preplanned Close Air Support Request

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
82	ORD-4-1	L	4											Ordnance code assigned to mission #4	
83	ORD-4-2	L	4											Alternate ordnance code assigned to mission #4	
84	ETOT-4	L	10				M							Estimated time on target. Julian date/time	
85	DATE-7	L	5				S								
86	TIME-7	L	4				S								
87	MSN-5	L	12											Mission number assigned to mission #5	
88	SORT-5	I	2											Sorties assigned to mission #5	
89	ORD-5-1	L	4											Ordnance code assigned to mission #5	
90	ORD-5-2	L	4											Alternate ordnance code assigned to mission #5	
91	ETOT-5	L	10				M							Estimated time on target. Julian date/time	
92	DATE-8	L	5				S								
93	TIME-8	L	4				S								

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System Development Corporation
TM-LX-346/600/01

3.1.3.22 Preplanned Fighter Frag Order/Mission Schedule

PREPLANNED FIGHTER FRAG ORDER
MISSION/PROPERTY MATRIX

PROPERTY NUMBERS AND NAME	AFFECTED MISSIONS →	PCAS	CA	INT	ESCORT	CAP
2. MISSION NUMBER		✓	✓	✓	✓	✓
7. STATUS		✓	✓	✓	✓	✓
8. TRANSMIT		✓	✓	✓	✓	✓
9. CALL SIGN		✓	✓	✓	✓	✓
10. TYPE AIRCRAFT		✓	✓	✓	✓	✓
11. NUMBER OF SORTIES		✓	✓	✓	✓	✓
12. ORDNANCE CODE I		✓	✓	✓	✓	✓
13. ORDNANCE CODE II		✓	✓	✓		
14. RECALL WORD			✓	✓	✓	✓
15. TARGET NUMBER			✓	✓		
16. REQUEST NUMBER		✓				
17. TOT		✓	✓	✓		
20. TARGET PRIORITY			✓	✓		
21. REQUEST PRIORITY		✓				
22. TARGET DESCRIPTION		✓	✓	✓		
23. TARGET LOCATION A		✓	✓	✓	✓	
24. TARGET LOCATION B		✓			✓	
25. TARGET LOCATION C		✓			✓	
26. TARGET LOCATION D		✓			✓	
27. TARGET LOCATION E		✓			✓	
28. TARGET LOCATION F		✓			✓	
29. AREA		✓			✓	
30. ALTERNATE TARGET NUMBER-1			✓	✓		
31. ALTERNATE TARGET PRIORITY			✓	✓		
32. ALTERNATE TARGET DESCRIPTION			✓	✓		
33. ALTERNATE TARGET LOCATION			✓	✓		
34. ALTERNATE TARGET NUMBER-2			✓	✓		

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System Development Corporation
TM-LX-346/600/01

<u>PROPERTY NUMBERS AND NAME</u>	AFFECTED MISSIONS→	PCAS	CA	INT	ESCORT	CAP
82. POSTSTRIKE REFUEL CONTROL POINT		✓	✓	✓	✓	✓
83. POSTSTRIKE REFUEL TIME		✓	✓	✓	✓	✓
86. POSTSTRIKE REFUEL OFFLOAD		✓	✓	✓	✓	✓
87. POSTSTRIKE TANKER CALL SIGN		✓	✓	✓	✓	✓
88. POSTSTRIKE TANKER FREQUENCY		✓	✓	✓	✓	✓
89. POSTSTRIKE TANKER MISSION NUMBER		✓	✓	✓	✓	✓
90. SUPPORT MISSION NUMBER-1		✓	✓	✓	✓	✓
91. SUPPORT MISSION NUMBER-2		✓	✓	✓		✓
92. SUPPORT MISSION NUMBER-3						✓
93. SUPPORT MISSION NUMBER-4						✓
94. SUPPORT MISSION NUMBER-5						✓
95. REMARKS-1		✓	✓	✓	✓	✓
96. ETD		✓	✓	✓	✓	✓
99. ATD		✓	✓	✓	✓	✓
102. AIRCRAFT AIRBORNE		✓	✓	✓	✓	✓
103. AIRCRAFT ABORT		✓	✓	✓	✓	✓
104. ABORT LANDING TIME		✓	✓	✓	✓	✓
107. ABORT LOCATION		✓	✓	✓	✓	✓
108. ABORT REASON		✓	✓	✓	✓	✓
109. ACTUAL PRESTRIKE FUEL UNLOADED		✓	✓	✓	✓	✓
110. ETOT		✓	✓	✓		
113. ATOT		✓	✓	✓		
116. ACTUAL POSTSTRIKE FUEL UNLOADED		✓	✓	✓	✓	✓
117. ETR		✓	✓	✓	✓	✓
120. ATR		✓	✓	✓	✓	✓
123. AIRCRAFT NOT RETURNED		✓	✓	✓	✓	✓
124. AIRCRAFT NOT RETURNED CALL SIGN		✓	✓	✓	✓	✓
125. REASON AIRCRAFT NOT RETURNED		✓	✓	✓	✓	✓
126. LOCATION OF DOWNED AIRCRAFT		✓	✓	✓	✓	✓
127. MISSION RESULTS		✓	✓	✓	✓	✓
128. REMARKS-2		✓	✓	✓	✓	✓
129. MISSION DELETED		✓	✓	✓	✓	✓

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System Development Corporation
TM-LX-346/600/01

PROPERTY NUMBERS AND NAME

130. OFFSET INGRESS CODE
131. INGRESS CODE
132. EGRESS CODE
133. OFFSET EGRESS CODE

AFFECTED MISSIONS→

PCAS	CA	INT	ESCORT	CAP
	✓	✓	✓	✓
	✓	✓	✓	✓
	✓	✓	✓	✓
✓	✓	✓	✓	✓

System Development Corporation
TM-LX-346/600/01

3.1.3.22

SHORT TITLE: PTFRFRAG/MSN

SHORT TITLE: PTFRFRAG/MSN

MAXIMUM NUMBER OF OBJECTS: 60

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	12	M						
2	MSN-NUM	L	12	S	1				Mission number. Ex: 496-095-CA01	
3	UNIT	L	3	S	1				Unit number. Ex: 496	
4	DAY	L	3	S	5				Julian day. Ex: 095	
5	MSN-TYPE	L	2	S	9				Type mission. Ex: CA	
6	SEQ-NUM	L	2	S	11				Sequence number. Ex: 01	
7	STATUS	L	1			A,C,D			A-Active (T.O. Report Received), C-Complete (Land Report Received), D-Deleted	
8	TRANSMIT	L	1						Enter 'X' when frag order is to be transmitted	
9	C/S	L	15						Mission call sign	
10	A/C-TYPE	L	6						Aircraft type. Ex: F105D	
11	SORT	L	2						Number of sorties in the mission	
12	ORD-1	L	4						Primary ordnance load. Ex: B-15	
13	ORD-2	L	4						Alternate ordnance load. Ex: B-10	
14	RECALL	L	10						Recall word. Ex: BOOMERANG	
15	TGT-NUM	L	4						Target number. Ex: BT56	
16	REQ-NUM	L	5						Request number. Ex: AA-02	
17	TOT	L	10	M					Time on target. Ex: 71095/1035	
18	DATE-1	L	5	S	1					
19	TIME-1	L	4	S	7					

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System Development Corporation
TM-LX-346/600/01

3.1.3.22 (Cont'd) FILE NAME: Preplanned Fighter Frog Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

PAGE 2 OF 8

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
20	TGT-PRI	I	1							1-4		Target priority		Target priority	
21	REQ-PRI	I	1							1-4		Request priority		Request priority	
22	TGT-DESCRIP	L	34									Target description. Ex: TUNNEL, BRIDGE, MISSILE SITE, HYDROELECTRIC PLANT, PERSONNEL-IN-OPEN, etc.		Target description. Ex: TUNNEL, BRIDGE, MISSILE SITE, HYDROELECTRIC PLANT, PERSONNEL-IN-OPEN, etc.	
23	TGT-LOC-A	L	12									Locates a point target or starting point by using lat/long.		Locates a point target or starting point by using lat/long.	
24	TGT-LOC-B	L	12									When used in conjunction with 'A', provides a route; if '29' is utilized, describes a target.		When used in conjunction with 'A', provides a route; if '29' is utilized, describes a target.	
25	TGT-LOC-C	L	12									When used in conjunction with 'A' and 'B', provides a route; if '29' is utilized, describes a target.		When used in conjunction with 'A' and 'B', provides a route; if '29' is utilized, describes a target.	
26	TGT-LOC-D	L	12									When used in conjunction with 'A' through 'C', provides a route; if '29' is utilized, describes a target.		When used in conjunction with 'A' through 'C', provides a route; if '29' is utilized, describes a target.	
27	TGT-LOC-E	L	12									When used in conjunction with 'A' through 'D', provides a route; if '29' is utilized, describes a target.		When used in conjunction with 'A' through 'D', provides a route; if '29' is utilized, describes a target.	
28	TGT-LOC-F	L	12									When used in conjunction with 'A' through 'E', provides a route; if '29' is utilized, describes a target.		When used in conjunction with 'A' through 'E', provides a route; if '29' is utilized, describes a target.	
29	AREA	L	15									When utilized in conjunction with properties 23-28, will describe a target area. Oval, square, round, etc.		When utilized in conjunction with properties 23-28, will describe a target area. Oval, square, round, etc.	
30	ALT-TGT-1	L	4									First alternate target number. Ex: BT63		First alternate target number. Ex: BT63	
31	ALT-TGT-1-PR	I	1									Alternate target priority		Alternate target priority	
32	ALT-TGT-1-DE	L	34									Description of alternate target		Description of alternate target	
33	ALT-TGT-1-LO	L	12									Alternate target location in lat/long		Alternate target location in lat/long	

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System Development Corporation
TM-LX-346/600/01

3.1.3.22 (Cont'd) FILE NAME: Preplanned Fighter Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
34	ALT-TGT-2	L	4		1-4		Second alternate target number
35	ALT-TGT-2-PR	I	1				Alternate target priority
36	ALT-TGT-2-DE	L	34				Description of alternate target
37	ALT-TGT-2-LO	L	12				Alternate target location in lat/long
38	FAC-C/S	L	15				FAC call sign
39	FAC-FREQ	L	11				FAC frequency, primary and secondary. Ex: 273.5-236.6
40	FAC-LOC	L	12				FAC location in lat/long
41	DEF-BASE	L	4				Departure base identifier. Ex: RKOS
42	DEF-BASE-LOC	L	12				Departure base location in lat/long
43	CTRL-AGENCY	L	15				Call sign of control agency. Ex: LOGROLL
44	CTRL-FREQ	L	5				Frequency of control agency. Ex: 232.5
45	REND-POINT	L	12				Rendezvous point in lat/long
46	REND-TIME	L	10	M			Rendezvous time. Ex: 71095/1020
47	DATE-2	L	5	S	1		
48	TIME-2	L	4	S	7		
49	OFFSET-IN	L	12				Location of offset point for ingress, lat/long
50	OFFSET-IN-TI	L	10	M			Time at offset point for ingress. Ex: 71095/1030
51	DATE-3	L	5	S	1		
52	TIME-3	L	4	S	7		
53	INGRESS	L	12				Ingress point in lat/long

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System Development Corporation
TM-LX-346/600/01

3.1, 3.2 (Cont'd) FILE NAME: Preplanned Fighter Frag Order/Mission Schedule

SHORT TITLE:

MAXIMUM NUMBER OF OBJECTS:

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OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE			EBCD FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
		PROPERTY TYPE	PROPERTY TYPE	PROPERTY TYPE					
54	INGRESS-TIME	L	10	M				Ex: 71095/1035	
55	DATE-4	L	5	S					
56	TIME-4	L	4	S			7		
57	CAP-POINT	L	12						
58	CAP-DUR	L	15	M				Lat/long	
59	DATE-5	L	5	S			1	CAP duration. Ex: 71095/1045-1145	
60	TIME-5	L	4	S			7		
61	TIME-6	L	4	S			12		
62	OFFSET-EG	L	12						Location of offset point for egress (lat/long)
63	OFFSET-EG-TI	L	10	M					Time at offset point for egress
64	DATE-7	L	5	S			1		
65	TIME-7	L	4	S			7		
66	EGRESS	L	12						Egress point in lat/long
67	EGRESS-TIME	L	10	M					Time at egress point
68	DATE-8	L	5	S			1		
69	TIME-8	L	4	S			7		
70	RECOV-BASE	L	4						Recovery base identifier
71	RECOV-LOC	L	12						Recovery base location (lat/long)
72	PRE-FUEL-AR	L	6						Prestrike refueling area. Ex: ALPHA
73	PRE-FUEL-CP	L	12						Prestrike refueling area. Control point (lat/long)

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System Development Corporation
TM-LX-346/600/01

3.1.3.22 (Cont'd) FILE NAME: Preplanned Fighter Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
74	PRE-FUEL-TI	L	10	M									Prestrike refueling time - Scheduled		
75	DATE-9	L	5	S	1										
76	TIME-9	L	4	S	7										
77	PRE-FUEL-PD	I	5											Prestrike refueling required in pounds of fuel.	
78	PRE-FUEL-TK	L	15											Prestrike refueling tanker call sign	
79	PRE-FUEL-FR	L	5											Prestrike refueling tanker frequency	
80	PRE-FUEL-MS	L	12											Prestrike refueling tanker mission number	
81	POST-FUEL-AR	L	6											Post strike refueling area. Ex: ALPHA	
82	POST-FUEL-CP	L	12											Post strike refueling control point	
83	POST-FUEL-TI	L	10	M										Post strike refueling time - Scheduled	
84	DATE-10	L	5	S	1										
85	TIME-10	L	4	S	7										
86	POST-FUEL-PD	I	5											Post strike refueling required in pounds of fuel	
87	POST-FUEL-TK	L	15											Post strike refueling tanker call sign	
88	POST-FUEL-FR	L	5											Post strike refueling frequency	
89	POST-FUEL-MS	L	12											Post strike refueling tanker mission number	
90	SUP-MSN-1	L	12											Mission number of support (ED) mission	
91	SUP-MSN-2	L	12											Mission number of support (ED) mission	
92	SUP-MSN-3	L	12											Mission number of support (ED) mission	
93	SUP-MSN-4	L	12											Mission number of support (ED) mission	

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System Development Corporation
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MAXIMUM NUMBER OF OBJECTS:

FILE NAME: Preplanned Fighter Frag Order, Mission 300-11

SHORT TITLE:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	PROPERTY FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			EBDCD	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION		
94	SUP-MSN-5	L	12				Mission number of support (ED) mission
95	REMARKS-1	T	58				Any amplifying data
96	ETD	L	10	M			Estimated time of departure
97	DATE-11	L	5	S	1		
98	TIME-11	L	4	S	7		
99	ATD	L	10	M			Actual time of departure
100	DATE-12	L	5	S	1		
101	TIME-12	L	4	S	7		
102	A/C-A/B	I	2				Number of mission aircraft airborne
103	ABORT-A/C	I	2				Number of mission aircraft aborted
104	ABORT-LAND	L	10	M			Aborted aircraft landing time
105	DATE-13	L	5	S	1		
106	TIME-13	L	4	S	7		
107	ABORT-LOC	L	4				Location of aborted aircraft, base designator
108	ABORT-REA	L	5				Abort reason. Ex: MAINT, WX, OPS
109	PRE-FUEL	I	5				Actual prestrike refuel unloaded in pounds
110	ETOT	L	10	M			Estimated time on target
111	DATE-14	L	5	S	1		
112	TIME-14	L	4	S	7		
113	ATOT	L	10	M			Actual time on target

3.1.3.22 (Cont'd) FILE NAME: Preplanned Fighter Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	ERCDIC FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			COMPLEX	INDICATOR	SLAVE PROPERTY START LOCATION		
114	DATE-15	L	5	S	1		
115	TIME-15	L	4	S	7		
116	POST-FUEL	I	5				Actual post strike refuel unloaded in pounds NOTE: Change description of property: POST-FUEL-MS Estimated time of return
117	ETR	L	10	M			
118	DATE-16	L	5	S	1		
119	TIME-16	L	4	S	7		
120	ATR	L	10	M			Actual time of return
121	DATE-17	L	5	S	1		
122	TIME-17	L	4	S	7		
123	A/C-NO-RET	I	2				Number of aircraft not returned
124	NO-RET-C/S	L	18				Call sign of aircraft not returned. Ex: SABRE01, 02
125	REA-NO-RET	L	15				Reason aircraft did not return. Ex: AAA, GROUND FIRE, MIG
126	LOC-DOWN	L	12				Location of downed aircraft, lat/long
127	MSN-RESULT	L	25				Mission results. Ex: SUCCESSFUL, UNSUCCESSFUL, ALL ORDNANCE ON TARGET, etc.
128	REMARKS-2	T	55				Any amplifying data
129	MSN-DELETE D	L	12				Mission number of the frag entry that was deleted to develop this frag entry

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System Development Corporation
TM-LX-346/600/01

1. Name of File NAME: Preplanned Fighter Ring Configuration Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
130	OFFSET-IN-CD	L	3				Offset Point - Ingress Code EX: ARD, BBO
131	INGRESS-CD	L	2				Ingress Point Code EX: AA, BB
132	EGRESS-CD	L	2				Egress Point Code EX: WA, WB
133	OFFSET-EG-CD	L	3				Offset Point - Egress Code EX: WAD, WBO
134	BLANK	L	2				To facilitate Programming
135	PRE-FUEL-AT	L	10	M			Prestrike refueling time - Actual
136	DATE-18	L	5	S	1		
137	TIME-18	L	4	S	7		
138	POST-FUEL-AT	L	10	M			Poststrike refueling time - Actual
139	DATE-19	L	5	S	1		
140	TIME-19	L	4	S	7		

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System Development Corporation
TM-LX-346/600/01

3.1.3.23 FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule
 SHORT TITLE: PRECFRAG/MSN
 OBJECT: MSN-NUM MAXIMUM NUMBER OF OBJECTS: 18 PAGE 1 OF 12

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	12	M	1	1	1	1	1	1	1	1	1	1	1
2	MSN-NUM	L	12	S	1	1	1	1	1	1	1	1	1	1	1
3	UNIT	L	3	S	1	1	1	1	1	1	1	1	1	1	1
4	DAY	L	3	S	5	1	1	1	1	1	1	1	1	1	1
5	MSN-TYPE	L	2	S	9	1	1	1	1	1	1	1	1	1	1
6	SEQ-NUM	L	2	S	11	1	1	1	1	1	1	1	1	1	1
7	STATUS	L	1												
8	TRANSMIT	L	1												
9	C/S	L	15												
10	A/C-TYPE	L	6												
11	SORT	I	2												
12	TOT-1	L	10	M											
13	DATE-1	L	5	S	1										
14	TIME-1	L	4	S	7										
15	REQ-NUM-1	L	7												
16	REQ-PRI-1	I	1												
17	TGT-CAT-1	L	34												
18	TGT-NUM-1	L	4												
19	TGT-LOC-A-1	L	12												

Mission number. Ex: 555-095-PRO2
 Unit number. Ex: 555
 Julian day. Ex: 095
 Mission type. Ex: PR
 Sequence number. Ex: 02
 A-Active (r.O. Report Received), C-Complete (Land Report Received),
 D-Deleted
 Complete when frag order is to be transmitted
 Mission call sign
 Aircraft type. Ex: RF4E
 Number sorties assigned this mission
 Time on target. Julian date and time
 Julian date. Ex: 71095
 Time. Ex: 0900
 Request number. Ex: AA-R-03
 Request priority
 Target Category (see PRECREQUEST file)
 Target number
 Locates a point target or strating point (lat/long)

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System Development Corporation
TM-LX-346/600/01

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NAME RECONSTRUCTION SYSTEM

FILE NAME:

SHORT TITLE:

OBJECT:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
20	TGT-LOC-B-1	L	12									Used with 'A' for route or 'AREA' for target description.			
21	TGT-LOC	L	12									Used with 'A' and 'B' for route or 'AREA' for target description.			
22	TGT-1	L	12									Used with 'A', 'B', and 'C' for route or 'AREA' for target description.			
23	TGT-LOC	L	12									Used with 'A' thru 'D' for route or 'AREA' for target description.			
24	TGT-LOC	L	12									Used with 'A' thru 'E' for route or 'AREA' for target description.			
25	AREA-1	L	15									Used with 'A-F' to describe a target. Ex: Oval, square			
26	SPEC-FIELD	L	25									Specific elements of information			
27	TYPE-RECC-1	L	23									Type of RECCE. (see PRECREQUEST)			
28	TYPE-PHOT	L	11									Type of photography (see PRECREQUEST)			
29	TYPE-FILM	L	1									Type of film (see PRECREQUEST)			
30	MAP-CHART-1	L	33									Map/Chart for plotting (see PRECREQUEST)			
31	SCALE-1	L	20									Scale and limits acceptable (see PRECREQUEST)			
32	PROD-1	L	24									Desired product (see PRECREQUEST)			
33	NUM-COPIES-1	L	8									Number of copies (see PRECREQUEST)			
34	DELIV-TIME-1	L	21	M								Delivery time desired (see PRECREQUEST)			
35	DATE-2	L	5	S		1						Julian date			
36	TIME-2	L	4	S		7						Time			
37	DATE-3	L	5	S		12						Julian date			
38	TIME-3	L	4	S		18						Time			
39	SPEC-INSTR-1	L	50									Special instructions			

3.1.3.23 (Cont'd) FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	SLAVE PROPERTY		
40	TOT-2	L	10	M			Request number. Ex: AA-R-03
41	DATE-4	L	5	S	1		Request priority
42	TIME-4	L	4	S	7		Target category (see PRECREQUEST file).
43	REQ-NUM-2	L	7				Target number
44	REQ-PRI-2	I	1				Locates a point target or starting point (lat/long)
45	TGT-CAT-2	L	34				Used with 'A' for route or 'AREA' for target description
46	TGT-NUM-2	L	4				Used with 'A', 'B', and 'C' for route or 'AREA' for target description
47	TGT-LOC-A-2	L	12				Used with 'A' thru 'D' for route or 'AREA' for target description
48	TGT-LOC-B-2	L	12				Used with 'A' thru 'E' for route or 'AREA' for target description
49	TGT-LOC-C-2	L	12				Used with 'A-F' to describe a target. Ex: Oval, Square
50	TGT-LOC-D-2	L	12				Specific elements of information
51	TGT-LOC-E-2	L	12				Type of RECCE. (See PRECREQUEST)
52	TGT-LOC-F-2	L	12				Type of photography (See PRECREQUEST)
53	AREA-2	L	15				Type of film (see PRECREQUEST)
54	SPEC-EEI-2	L	25				Map/Chart for plotting (see PRECREQUEST)
55	TYPE-RECCE-2	L	23				Scale and limits acceptable (see PRECREQUEST)
56	TYPE-PHOTO-2	L	11				
57	TYPE-FILM-2	L	1				
58	MAP-CHART-2	L	33				
59	SCALE-2	L	20				

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FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
60	PROD-2	L	24											Desired product (see PRECREQUEST)	
61	NUM-COPIES	L	8											Number of copies (see PRECREQUEST)	
62	DELIV-TIME	L	21			M								Delivery time desired (see PRECREQUEST)	
63	DATE-5	L	5			S								Julian date	
64	TIME-5	L	4			S								Time	
65	DATE-6	L	5			S								Julian date	
66	TIME-6	L	4			S								Time	
67	SPEC-INSTR-2	L	50											Special instructions	
68	TOT-3	L	10			M									
69	DATE-7	L	5			S									
70	TIME-7	L	4			S									
71	REQ-NUM-3	L	7											Request number. EX: AA-R-03	
72	REQ-PRI-3	I	1											Request priority	
73	TGT-CAT-3	L	34											Target category (see PRECREQUEST file)	
74	TGT-NUM-3	L	4											Target number	
75	TGT-LOC-A-3	L	12											Locates a point target or starting point (lat/long)	
76	TGT-LOC-B-3	L	12											Used with 'A' for route or 'AREA' for target description	
77	TGT-LOC-C-3	L	12											Used with 'A' and 'B' for route for 'AREA' for target description	
78	TGT-LOC-D-3	L	12											Used with 'A', 'B' and 'C' for route or 'AREA' for target description	
79	TGT-LOC-E-3	L	12											Used with 'A' thru 'D' for route or 'AREA' for target description	
80	TGT-LOC-F-3	L	12											Used with 'A' thru 'E' for route or 'AREA' for target description	

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3.1.1.3.23 (Cont'd) FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
81	AREA-3	L		15										Used with 'A-F' to describe a target. EX: Oval, Square.	
82	SPEC-EEI-3	L		25										Specific elements of information	
83	TYPE-RECCE-3	L		23										Type of RECCE. (See PRECREQUEST)	
84	TYPE-PHOTO-3	L		11										Type of photography (See PRECREQUEST)	
85	TYPE-FILM-3	L		1										Type of film (See PRECREQUEST)	
86	MAP-CHART-3	L		33										Map/Chart for plotting (see PRECREQUEST)	
87	SCALE-3	L		20										Scale and limits acceptable (see PRECREQUEST)	
88	PROD-3	L		24										Desired product (see PRECREQUEST)	
89	NUM-COPIES-3	L		8										Number of copies	
90	DELIV-TIME-3	L		21		M								Delivery time desired (see PRECREQUEST)	
91	DATE-8	L		5		S				1				Julian Date	
92	TIME-8	L		4		S				7				Time	
93	DATE-9	L		5		S				12				Julian date	
94	TIME-9	L		4		S				18				Time	
95	SPEC-INSTR-3	L		50										Special Instructions	
96	TOT-4	L		10		M									
97	DATE-10	L		5		S				1					
98	TIME-10	L		4		S				7					
99	REQ-NUM-4	L		7										Request number. EX: AA-R-03	
100	REQ-PRI-4	I		1										Request priority	

3.1.3.23 (Cont'd) FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
121	DATE-12	L	5	S	12	18						Julian date			
122	TIME-12	L	4	S	18							Time			
123	SPEC-INSTR-4	L	50									Special Instructions			
124	DEP-BASE	L	4									Departure base identifier. EX: RKOS			
125	DEP-BASE-LOC	L	12									Departure base location (lat/long)			
126	CTRL-AGENCY	L	15									Control agency call sign			
127	CTRL-FREQ	L	5									Control agency frequency			
128	REND-POINT	L	12									Rendezvous point (lat/long)			
129	REND-TIME	L	10	M								Rendezvous time. EX: 71098/1010			
130	DATE-13	L	5	S	1							Date EX: 71098			
131	TIME-13	L	4	S	7							Time EX: 1010			
132	OFFSET-IN	L	12									Ingress offset point (lat/long)			
133	OFFSET-IN-TI	L	10	M								Time at ingress offset point			
134	DATE-14	L	5	S	1							Date			
135	TIME-14	L	4	S	7							Time			
136	INGRESS	L	12									Ingress point (lat/long)			
137	INGRESS-TIME	L	10	M								Ingress point time. EX: 71098/1020			
138	DATE-15	L	5	S	1							Date. EX: 71098			
139	TIME-15	L	4	S	7							Time. EX: 1020			
140	OFFSET-EG	L	12									Egress offset point (lat/long)			

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

SHUKI TITLE:

PROPERTY NUMBER			PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
141	OFFSET-EG-TI		L	10	M								Time at Egress offset point			
142	DATE-18		L	5	S	1							Date			
143	TIME-17		L	4	S	7							Time			
144	EGRESS		L	12									Egress point (lat/long)			
145	EGRESS-18		L	10	M											
146	DATE-17		L	5	S	1										
147	TIME-17		L	4	S	7										
148	RECOV-BASE		L	4									Recovery base identifier			
149	RECOV-LOC		L	12									Recovery base location (lat/long)			
150	PRE-FUEL-AR		L	6									Prestrike refueling area. EX: ALPHA			
151	PRE-FUEL-CP		L	12									Prestrike refueling control point (lat/long)			
152	PRE-FUEL-TI		L	10	M								Prestrike refueling time - scheduled			
153	DATE-18		L	5	S	1										
154	TIME-18		L	4	S	7										
155	PRE-FUEL-PD		I	5									Prestrike refueling required in pounds of fuel			
156	PRE-FUEL-TK		L	15									Prestrike refueling tanker call sign			
157	PRE-FUEL-FR		L	5									Prestrike refueling frequency			
158	PRE-FUEL-MS		L	12									Prestrike refueling mission number			
159	POST-FUEL-AR		L	6									Poststrike refueling area. EX: ALPHA			
160	POST-FUEL-CP		L	12									Poststrike refueling control point			

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FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

3.1.3.23 (Cont'd)

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
			PROPERTY NAME	PROPERTY TYPE	PROPERTY NAME				
161	POST-FUEL-TI	L	10	M				Poststrike refueling time - scheduled	
162	DATE-19	L	5	S	1				
163	TIME-19	L	4	S	7				
164	POST-FUEL-PD	I	5					Poststrike refueling required in pounds of fuel	
165	POST-FUEL-TK	L	15					Poststrike refueling tanker call sign	
166	POST-FUEL-FR	L	5					Poststrike refueling frequency	
167	POST-FUEL-MS	L	12					Poststrike refueling mission number	
168	RECALL	L	10					Recall word	
169	SUP-MSN-1	L	12					Mission number of support mission	
170	SUP-MSN-2	L	12					Mission number of support mission	
171	REMARKS-1	T	58					Any amplifying data	
172	ETD	L	10	M				Estimated time of departure	
173	DATE-20	L	5	S	1				
174	TIME-20	L	4	S	7				
175	ATD	L	10	M				Actual time of departure	
176	DATE-21	L	5	S	1				
177	TIME-21	L	4	S	7				
178	A/C-A/B	I	2					Number of mission aircraft airborne	
179	ABORT-A/C	I	2					Number of mission aircraft aborted	
180	ABORT-LAND	L	10	M				Aborted aircraft landing time	

3.1.3.23 (Cont'd) FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
			1	2	3				
201	ATOT-3	L	10			M			Actual time on third target
202	DATE-28	L	5			S	1		
203	TIME-28	L	4			S	7		Estimated time on fourth target
204	ETOT-4	L	10			M			
205	DATE-29	L	5			S	1		
206	TIME-29	L	4			S	7		Actual time on fourth target
207	ATOT-4	L	10			M			
208	DATE-30	L	5			S	1		
209	TIME-30	L	4			S	7		Actual post strike fuel unloaded in pounds
210	POST-FUEL	I	5						Estimated time of return
211	ETR	L	10			M			
212	DATE-31	L	5			S	1		
213	TIME-31	L	4			S	7		
214	ATR	L	10			M			Actual time of return
215	DATE-32	L	5			S	1		
216	TIME-32	L	4			S	7		
217	A/C-NO-RET	I	2						Number of aircraft not returned
218	NO-RET-C/S	L	18						Call sign of aircraft not returned. EX: SABRE01,02
219	REA-NO-RET	L	15						Reason aircraft did not return. EX: AA, GROUND FIRE
220	LOG-DOWN	L	12						Location of Downed aircraft (lat/long)

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3...23 FILE NAME: Preplanned Reconnaissance Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
221	REMARKS	T	58				Any amplifying data
222	MSN-DEL	L	12			1-4	Mission number of frag entry deleted to develop this frag entry
223	NUM-REQ	I	1				Total number of requests assigned to this mission.
224	OFFSET-EG	L	3				Offset Point - Ingress Code EX: AAD,BEO
225	INGRESS-EG	L	2				Ingress Point Code EX: AA, BB
226	EGRESS-CD	L	2				Egress Point Code EX: WA, WB
227	OFFSET-EG..	L	3				Offset Point - Ingress Code EX: WAD,WBO
228	BLANK	L	2				To facilitate programming
229	PRE-FUEL-AT	L	10	M			Prestrike refueling time - Actual
230	DATE-33	L	5	S	1		
231	TIME-33	L	4	S	7		
232	POST-FUEL-AT	L	10	M			Poststrike refueling time - Actual
233	DATE-34	L	5	S	1		
234	TIME-34	L	4	S	7		

3.1.3.24 FILE NAME: Preplanned Air Reconnaissance Request
SHORT TITLE: PREREQUEST
OBJECT: REQ-NUM 50

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	7	M	S	1									
2	REQ-NUM	L	7												Originators request number. Ex: AA-R-02
3	TGT-NUM	L	4												Target number. Ex: BT56
4	TYPE	L	1												Type request. Immediate or preplanned
5	ASAP	L	3												Type Request. As Soon As Possible
6	PCA	I	2												Previous Coverage Acceptable in number of days prior to request.
7	LTIME	L	10		M										Latest Time Information is Of Value (latest time picture can be taken) Julian date and time
8	DATE-1	L	5		S	1									Type of reconnaissance may be one, or combination of the following.
9	TIME-1	L	4		S	7									A-Visual, B-Photographic, C-Electronic, D-Weather, E-TV, F-Radar Scope, G-Siar, H-Infrared, I-Laser
10	TYPE-RECCE	L	23												Type of photography to satisfy mission requirements.
11	TYPE-PHOTO	L	11												A-Strip, B-Area Coverage, C-Pinpoint, D-Panoramic High, E-Panoramic Low, F-Vertical, G-Forward Oblique, H-Side Oblique High, I-Side Oblique Low, J-Split Vertical, K-Stereo
12	TYPE-FILM	L	1												Type of film. A-Black and White, B-Color, C-Camouflage Detection, D-Infrared

3. FILE NAME: Preplanned Air Reconnaissance Request

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
13	NAP-CV-1	L	33				Indicates particular map/chart on which target can be plotted. TYPE/SERIES NAME OR NUMBER/SHEET NUMBER/EDITION NUMBER/DATE 10 8 2 5 Locates a point target or starting point by using LAT/LONG.
14	TGT-LOC-A	L	12				B. When used in conjunction with 'A', provides a route; if '20' is utilized, describes a target.
15	TGT-LOC-B	L	12				C. When used in conjunction with 'A' and 'B', provides a route; if '20' is utilized, describes a target.
16	TGT-LOC-C	L	12				D. When used in conjunction with 'A' through 'C', provides a route; if '20' is utilized, describes a target.
17	TGT-LOC-D	L	12				E. When used in conjunction with 'A' through 'D', provides a route; if '20' is utilized, describes a target.
18	TGT-LOC-E	L	12				F. When used in conjunction with 'A' through 'E', provides a route; if '20' is utilized, describes a target.
19	TGT-LOC-F	L	12				When utilized in conjunction with properties 14-19, will describe a target area. Oval, square, round, etc.
20	AREA	L	15				Target category describes type of target(s).
21	TGT-CAT	L	34				A: Airfield, B: Beach, C: Bomb Damage Assessment, D: Bridge, E: Coastal Reconnaissance, F: Dam/Hydroelectric Plant, G: Electronic Site, H: Ferries and River Crossings, I: Gun Emplacement/Position, J: Harbor and Port Facilities, K: Helicopter Landing Zone, L: Industrial Site, M: Locks (River or Canal), N: Military Fortifications, O: Military/Government Control Center, P: Military Installations/Area, Q: Missile Site, R: Pol Facility, S: Railroad Strip, T: Railroad Yard, U: Road Junction,

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FILE NAME: Preplanned Air Reconnaissance Request

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE	REMARKS/DESCRIPTION
38	TIME-1	L	4	S	7								
39	MSN-1	L	12										Second mission number assigned against this request
40	SORT-1	I	2										Sorties assigned against second mission
41	TOT-2	L	10	M									Time on target for second mission
42	DATE-3	L	5	S	1								
43	TIME-4	L	4	S	7								
44	MSN-3	L	12										
45	SORT-3	I	2										
46	TOT-3	L	10	M									
47	DATE-6	L	5	S	1								Enter 'X' if fighter support is required
48	TIME-6	L	4	S	7								Enter 'X' if EW support is required
49	FTR-SUPP	L	1										
50	EW-SUPP	L	1										

Second mission number assigned against this request
Sorties assigned against second mission
Time on target for second mission

Enter 'X' if fighter support is required
Enter 'X' if EW support is required

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3.1.3.25 FILE NAME: Recall Words
SHORT TITLE: RECALLWORD
OBJECT: RECALLWORD
MAXIMUM NUMBER OF OBJECTS: 1
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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	2	L	2								003-152			Property number of next recall word
2	WORD-LOC	3	I	3											Recall word. Ex: BOOMERANG
3	R001		L	10											Recall word. Ex: YO-YO
4	R002		L	10											"
5	R003		L	10											"
6	R004		L	10											"
7	R005		L	10											"
8	R006		L	10											"
9	R007		L	10											"
10	R008		L	10											"
11	R009		L	10											"
12	R010		L	10											"
13	R011		L	10											"
14	R012		L	10											"
15	R013		L	10											"
16	R014		L	10											"
17	R015		L	10											"
18	R016		L	10											"
19	R017		L	10											"
20	R018		L	10											"

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MAXIMUM NUMBER OF OBJECTS:

FILE NAME: Recall Words

SHORT TITLE:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
21 R019	L	10				Recall word.	
22 R020	L	10				"	"
23 R021	L	10				"	"
24 R022	L	10				"	"
25 R023	L	10				"	"
26 R024	L	10				"	"
27 R025	L	10				"	"
28 R026	L	10				"	"
29 R027	L	10				"	"
30 R028	L	10				"	"
31 R029	L	10				"	"
32 R030	L	10				"	"
33 R031	L	10				"	"
34 R032	L	10				"	"
35 R033	L	10				"	"
36 R034	L	10				"	"
37 R035	L	10				"	"
38 R036	L	10				"	"
39 R037	L	10				"	"
40 R038	L	10				"	"

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MAXIMUM NUMBER OF OBJECTS:

3.1.3.25 (Cont'd) FILE NAME: Recall Words

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OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
41 R039	L	10					Recall word.
42 R040	L	10					"
43 R041	L	10					"
44 R042	L	10					"
45 R043	L	10					"
46 R044	L	10					"
47 R045	L	10					"
48 R046	L	10					"
49 R047	L	10					"
50 R048	L	10					"
51 R049	L	10					"
52 R050	L	10					"
53 R051	L	10					"
54 R052	L	10					"
55 R053	L	10					"
56 R054	L	10					"
57 R055	L	10					"
58 R056	L	10					"
59 R057	L	10					"
60 R058	L	10					"

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FILE NAME: Recall Words

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
61	R059	L	10			Recall word.	
62	R060	L	10			"	"
63	R061	L	10			"	"
64	R062	L	10			"	"
65	R063	L	10			"	"
66	R064	L	10			"	"
67	R065	L	10			"	"
68	R066	L	10			"	"
69	R067	L	10			"	"
70	R068	L	10			"	"
71	R069	L	10			"	"
72	R070	L	10			"	"
73	R071	L	10			"	"
74	R072	L	10			"	"
75	R073	L	10			"	"
76	R074	L	10			"	"
77	R075	L	10			"	"
78	R076	L	10			"	"
79	R077	L	10			"	"
80	R078	L	10			"	"

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3.1.3.25 (Cont'd) FILE NAME: Recall Words

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
81	R079	L	10				Recall word.
82	R080	L	10			"	"
83	R081	L	10			"	"
84	R082	L	10			"	"
85	R083	L	10			"	"
86	R084	L	10			"	"
87	R085	L	10			"	"
88	R086	L	10			"	"
89	R087	L	10			"	"
90	R088	L	10			"	"
91	R089	L	10			"	"
92	R090	L	10			"	"
93	R091	L	10			"	"
94	R092	L	10			"	"
95	R093	L	10			"	"
96	R094	L	10			"	"
97	R095	L	10			"	"
98	R096	L	10			"	"
99	R097	L	10			"	"
100	R098	L	10			"	"

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MAXIMUM NUMBER OF OBJECTS:

FILE NAME: Recall Words

SHORT TITLE:

OBJECT:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
101	1099	L	10												Recall word.
102	1100	L	10												"
103	1101	L	10												"
104	1102	L	10												"
105	1103	L	10												"
106	1104	L	10												"
107	1105	L	10												"
108	1106	L	10												"
109	1107	L	10												"
110	1108	L	10												"
111	1109	L	10												"
112	1110	L	10												"
113	1111	L	10												"
114	1112	L	10												"
115	1113	L	10												"
116	1114	L	10												"
117	1115	L	10												"
118	1116	L	10												"
119	1117	L	10												"
120	1118	L	10												"

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
121	R119	L	10				Recall word.
122	R120	L	10				" "
123	R121	L	10				" "
124	R122	L	10				" "
125	R123	L	10				" "
126	R124	L	10				" "
127	R125	L	10				" "
128	R126	L	10				" "
129	R127	L	10				" "
130	R128	L	10				" "
131	R129	L	10				" "
132	R130	L	10				" "
133	R131	L	10				" "
134	R132	L	10				" "
135	R133	L	10				" "
136	R134	L	10				" "
137	R135	L	10				" "
138	R136	L	10				" "
139	R137	L	10				" "
140	R138	L	10				" "

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MAXIMUM NUMBER OF OBJECTS:

FILE NAME: Recall Words

SHORT TITLE:

OBJECT:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
141	R139	L	10									Recall word.			
142	R140	L	10									"			
143	R141	L	10									"			
144	R142	L	10									"			
145	R143	L	10									"			
146	R144	L	10									"			
147	R145	L	10									"			
148	R146	L	10									"			
149	R147	L	10									"			
150	R148	L	10									"			
151	R149	L	10									"			
152	R150	L	10									"			
												Recall word. Ex: HOTBOX			

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	6	M			Unit designator. Ex: 466TRS
2	UNIT	L	6	S	1		4 letter station identifier/H or D. H-Home, D-Dispersed
3	BASE	L	6				Type and model of RECCE and EW aircraft, EX: RF4/EB66
4	A/C-TYPE	L	9				Preplanned reconnaissance sorties assigned
5	PREC	I	2				Immediate reconnaissance sorties assigned
6	IREC	I	2				Electronic warfare sorties assigned
7	EW	I	2				Total sorties assigned
8	TOTAL	I	2				

NOTE: This file reflects reconnaissance and electronic warfare sorties assigned to one composite recce squadron. The number of objects supports the squadron at its home base and one dispersal base. The additional objects are for a blank entry and a grand total entry.

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FILE NAME: Refueling Area
SHORT TITLE: REFUELAREA
OBJECT: AREA

MAXIMUM NUMBER OF OBJECTS: 2 PAGE 1 OF 1

OBJECT: AREA												MAXIMUM NUMBER OF OBJECTS: 2	
PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	6	M	1	DDDDL/DDDDL,DDDDL/DDDDL,DDDDL/DDDDL,DDDDL/DDDDL		Enter name/identifier of refueling area					
2	AREA	L	6	S	1			Lat/long of one corner of refueling area					
3	COORD	L	51	M	14			Lat/long of one corner of refueling area					
4	C-1	L	12	S	27			Lat/long of one corner of refueling area					
5	C-2	L	12	S	40			Refueling control point - center lat/long of refueling area					
6	C-3	L	12	S				Upper and lower altitude limits for refueling operations.					
7	C-4	L	12	S				EX: 20000-16000					
8	REFUEL-CF	L	12					Speed in knots for refueling operations					
9	ALT	L	13					Refueling headings will be entered in 5 degree increments.					
10	SPD	I	3					EX: 360,180					
11	HDGS	L	7					Tanker pattern and turn rate. EX: LEFT-15 DEGREES					
12	PATTERN	L	16										

FILE NAME: Requesting Agency Distribution (Adjustment)

SHORT TITLE:

REAGEN CYDIS

OBJECT: REQUEST

MAXIMUM NUMBER OF OBJECTS: 20

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	2	L	2	M	S	1					Requesting agency designator. EX: A,AB,B,BA,etc.		
2	REQUEST	L	2	L	2	S							Requesting agency address. EX: LITH MECHINDIV(US)HYON-NI		
3	ADD	L	30												

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MAXIMUM NUMBER OF OBJECTS: 20

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	3				
2	IRY	L	3	S	1		Battery Designator
3	DATE-1	L	10	M			Julian Date and Zulu Time. EX: 71090/1430
4	DATE-1	L	5	S	1		
5	TIME-1	L	4	S	7		
6	TYPE	L	4				Name of Weapon EX: HAWK
7	TYPE	L	4				Enter SAM1 or SAM2
8	TOTAL	I	3				Total Number of Weapons
9	5'	I	2				Number of Missiles on 5 Minute Alert
10	15'	I	2				Number of Missiles on 15 Minute Alert
11	30'	I	2				Number of Missiles on 30 Minute Alert
12	1HR	I	2				Number of Missiles on 1 Hour Alert
13	3HR	I	2				Number of Missiles on 3 Hour Alert
14	NOP	I	2				Number of Missiles Non-Operational
15	ETRO	L	10	M			Expected Time of Return to Operational Status (ETRO) of Missile Reported Now-Operational
16	DATE-2	L	5	S	1		
17	TIME-2	L	4	S	7		
18	C/S	L	15				Call Sign
19	HI	I	2				Number of missiles with High Yield Nuclear Warheads
20	LO	I	2				Number of Missiles with Low Yield Nuclear Warheads.

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[illegible]

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MAXIMUM NUMBER OF OBJECTS:

d) FILE NAME: Search and Rescue Requirements

SHORT TITLE:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
21	SAR-1	L	12				SAR Mission Number
22	COND-1	L	50				Condition of Damaged Aircraft
23	COND-2	L	50				Condition of Pilot/Crew

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3.1.3.31

FILE NAME: Search and Rescue Frag Order/Mission Schedule

SHORT TITLE: SARFRAG/MSN

OBJECT: MSN-NUM

MAXIMUM NUMBER OF OBJECTS: 12

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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		ERCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1.	NAME	L	12	L	12	M									
2.	MSN-NUM	L	12	L	12	S		1						Mission Number. EX: 049-112-AR01	
3.	UNIT	L	3	L	3	S		1						Unit Number. EX: 49	
4.	DAY	L	3	L	3	S		5						Julian Day. EX: 112	
5.	MSN-TYPE	L	2	L	2	S		9						Type Mission. EX: AR	
6.	SEQ-NUM	L	2	L	2	S		11						Sequence Number. EX: 01	
7.	TRANSMIT	L	1	L	1									Enter "X" when Frag Order is to be transmitted.	
8.	C/S	L	15	L	15									Mission Call Sign	
9.	A/C-TYPE	L	6	L	6									Type Aircraft. EX: HH43	
10.	DURATION	L	15	L	15	M								Duration of Alert. EX: 71112/1115-1745	
11.	DATE-1	L	5	L	5	S		1							
12.	TIME-1	L	4	L	4	S		7							
13.	TIME-2	L	4	L	4	S		12							
14.	ALERT-STA	L	4	L	4									Alert Station, Base Designator. EX: RKOS	
15.	ORBIT-PT	L	12	L	12									Orbit Point. LAT/LONG	

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FILE NAME: Search and Rescue Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
16	CTF	L	15				Control Agency Call Sign
17	CTF	L	5				Control Agency Frequency. EX: 243.0
18	EMER	L	5				Emergency Frequency for Rescue Operations. EX: 344.0
19	MSN-COORD	L	15				Call Sign of Mission Coordinator
20	COORD-FREQ	L	5				Frequency of Mission Coordinator
21	REMARKS	S	50				Any Amplifying Data
22	ATD	L	10	M			Actual Time of Departure. EX: 71112/1315
23	DATE-3	L	5	S	1		Date-7112
24	TIME-3	L	4	S	7		Time-1315
25	ABORT-A/C	I	2				Aborted aircraft landing time.
26	ABORT LAND	L	10	M			
27	DATE-4	L	5	S	1		
28	TIME-4	L	4	S	7		
29	ABORT-LOC	L	4				Location of Aborted aircraft, Base Designator
30	ABORT-REA	L	5				Abort Reason. MAINT, WX, OPS

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3.1.3.31 (Cont'd) FILE NAME: Search and Rescue Frag Order/Mission Schedule

SHORT TITLE:

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
31	REQ-NUM	L	5			SAR Requirement Number. EX: SAR12	
32	DIS-DOWN-MSN	L	12			Mission Number of Aircraft in Distress or Down	
33	DIS-DOWN-C/S	L	15			Call Sign of Aircraft in Distress or Down	
34	DEST	L	12			Destination of SAR Mission, LAT/LONG or Base Desig.	
35	SAR-LOC	L	12			Location of SAR Aircraft, LAT/LONG; Periodically updated	
36	SAR-LOC-TI	L	10	M		Time associated with Last Reported Position of SAR Aircraft. Periodically Updated.	
37	DATE-5	L	5	S	1		
38	TIME-5	L	4	S	7		
39	EST-INT-PIC	L	10	M		Estimated Intercept/Pick-up Time	
40	DATE-6	L	5	S	1		
41	TIME-6	L	4	S	7		
42	ACT-INT-PIC	L	10	M		Actual Intercept/Pick-up Time	
43	DATE-7	L	5	S	1		
44	TIME-7	L	4	S	7		

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System Development Corporation
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FILE NAME: Search and Rescue Frag Order/Mission Schedule

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
41.	DIR	L		10		M						Estimated Time of Return			
42.	DATE-8	L		5		S		1							
43.	TIMS-4	L		4		S		7							
44.	DIR	L		10		M						Actual Time of Return			
49.	DATE-9	L		5		S		1							
51.	TIME-9	L		4		S		7							
51.	A/C-NO-RET	I		1								Number of Aircraft Not Returned			
52.	NO-RET-C/S	L		15								Call Sign of Aircraft Not Returned. EX: SABRE 01,02			
53.	REA-NO-RET	L		15								Reason Aircraft Did Not Return			
54.	LOC-DOWN	L		12								Location of Downed Aircraft (LAT/LONG)			
55.	REMARKS-2	T		50								Any Amplifying Data			
56.	STATUS	L		1						A, C, D		A-Active (T.O. Report Received), C-Complete (Land Report Received), D-Deleted			

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3.1.1.3.32 FILE NAME: Special Instructions
SHORT TITLE: SPIN
OBJECT: TYPE-SPIN
MAXIMUM NUMBER OF OBJECTS: 3
PAGE 1 OF 1

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1.	NAME	L	3	M	S	1	FTR, REC, or GEN								
2.	TYPE-SPIN	L	3												
3.	SPIN-1	T	100											Special Instruction - 1	
4.	SPIN-2	T	100											Special Instruction - 2	
5.	SPIN-3	T	100											Special Instruction - 3	
6.	SPIN-4	T	100											Special Instruction - 4	
7.	SPIN-5	T	100											Special Instruction - 5	
8.	SPIN-6	T	100											Special Instruction - 6	
9.	SPIN-7	T	100											Special Instruction - 7	
10.	SPIN-8	T	100											Special Instruction - 8	
11.	SPIN-9	T	100											Special Instruction - 9	
12.	SPIN-10	T	100											Special Instruction - 10	

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System Development Corporation
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3.1.3.33 (Con'td) FILE NAME: Tactical Action Data

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
5.	RESULT/TIME (Cont'd)						<p>**If results equal MI, then enter the reason as follows:</p> <p>LS-Late Scramble ECM-Electronic Countermeasure WX-Weather ACP-Aircraft Performance IX-Darkness GEF-Ground Equipment Failure PE-Pilot Error AEF-Airborne Equipment Failure CE-Controller Error FPI-Fade Prior to Intercept ABT-Abort LC-Late Commitment</p> <p>Enter: H-Hostile, K-Faker, U-Unknown, P-Pending, E-Emergency, I-Air Defense Fighter, V-VIP, S-Special, F-Other.</p> <p>Enter Cumulative Kills. Amplifying Data</p>
6.	CLASS	L	1				
7.	CUM-KILL	I	2				
8.	REMARKS	L	27				

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FILE NAME: TACS Facility Status

SHORT TITLE: TACS FACSTAT

OBJECT: FAC

MAXIMUM NUMBER OF OBJECTS: 25

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1 NAME	L	6	M				
2 AC	L	6	S	1			Facility Identifier
3 AS-OF-DATE	L	10	M				Julian Date and Time
4 DATE-I	L	5	S	1			
5 TIME-I	L	4	S	7			
6 TYPE-REPORT	L	4					Enter the type of report (I-INITIAL, A-AMENDING, O-OPERATIONAL) and the serial number of the status message (00-99) commencing at 01 each day at 0001Z. EX: A-04.
7 ITEM/CAUSE-I	L	4			S, H, CD, PG, LC, I, AG, OC/A, B, C, D, E, G, I, M, N, O, P, R, T, W, X.		Equipment will be reported by item and cause code as follows: <div style="display: flex; justify-content: space-between;"> <div> <u>ITEM</u> S-Search H-Height CD-Control & Display PG-Power or Generator LC-Lateral or Local Comm I-IFF/SIF AG-Air/Ground Comm OC-Operational Comm </div> <div> <u>CAUSE</u> A-Acceptance Check B-Breakdown C-Calibration D-Depot Maint. E-Equipment Mode G-Power or Generator I-Phase in Equip. M-Scheduled Maint. N-Deployment O-Phase out Equip. P-ROCP R-Radiation Hazard T-Testing or Peaking W-Weather </div> </div>

X-Another amplifying report to follow

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System Development Corporation
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3.1.3.34 (Cont'd) FILE NAME: TACS Facility Status

SHORT TITLE:

OBJECT:

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MAXIMUM NUMBER OF OBJECTS:

OBJECT :										MAXIMUM NUMBER OF OBJECTS :									
PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION					
8	ETRO-1	L	L	10	M							Estimated Time Return Operational							
9	DATE-2	L	L	5	S				1			Equipment will be reported by item and cause code as follows: <div><div>ITEM</div><div>S-Search H-Height CD-Control & Display PG-Power or Generator LC-Lateral or Local Comm I-IFF/SIF AG-Air/Ground Comm OC-Operational Comm</div></div> <div><div>CAUSE</div><div>A-Acceptance Check B-Breakdown C-Calibration D-Depot Maint. E-Equipment Mode G-Power or Generator I-Phase in Equip. M-Scheduled Maint. N-Deployment O-Phase out Equip. P-ROCP R-Radiation Hazard T-Testing or Peaking W-Weather X-Another amplifying report to follow</div></div>							
10	TIME-2	L	L	4	S				7										
11	ITEM/CAUSE-2	L	L	4															
12	ETRO-2	L	L	10	M														
13	DATE-3	L	L	5	S				1										
14	TIME-3	L	L	4	S				7										

FILE NAME: TACS Facility Status

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1. ITEM	L	4					Equipment will be reported by item and cause code as follows: <div> <div>ITEM</div> <div> S-Search H-Height CD-Control and Display PG-Power or Generator LC-Lateral or Local Comm I-IFF/SIF AG-Air/Ground Comm OC-Operational Comm </div> </div> <div> <div>CAUSE</div> <div> A-Acceptance Check B-Breakdown C-Calibration D-Depot Maint. E-Equipment Mode G-Power or Generator I-Phase in Equip. M-Scheduled Maint. N-Deployment O-Phase out Equip. P-ROCP R-Radiation Hazard T-Testing or Peaking W-Weather X-Another amplifying report to follow. </div> </div>
16 ETRO-3	L	10	M		1		
17 DATE-4	L	5	S		7		
18 TIME-4	L	4	S				

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FILE NAME: Tactical Base Munitions Status
 SHORT TITLE: BASEMUNSTAT
 OBJECT: BASE
 MAXIMUM NUMBER OF OBJECTS: 8
 PAGE 1 OF 2

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	NAME	L	4	M										Enter base designator. EX: RKOS	
2	BASE	L	4	S										Julian date and Zulu Time. EX: 71090/0830	
3	AC-OF-TIME	L	10	M											
4	DATE - 1	L	5	S											
5	TIME - 1	L	4	S											
6	TYPE-MUN-1	L	15											Munitions Type. EX: MARK 117 750GP	
7	RDS-ONHAN-1	I	6											Number of rounds on hand that are useable.	
8	TYPE-MUN-2	L	15											Munitions Type. EX: MARK 117 750GP	
9	RDS-ONHAN-2	I	6											Number of rounds on hand that are useable.	
10	TYPE-MUN-3	L	15											Munitions Type. EX: MARK 117 750GP	
11	RDS-ONHAN-3	I	6											Number of rounds on hand that are useable.	
12	TYPE-MUN-4	L	15											Munitions Type. EX: MARK 117 750GP	
13	RDS-ONHAN-4	I	6											Number of rounds on hand that are useable.	
14	TYPE-MUN-5	L	15											Munitions Type. EX: MARK 117 750GP	
15	RDS-ONHAN-5	I	6											Number of rounds on hand that are useable.	

3.1.3.35 (Cont'd) FILE NAME: Tactical Base Munitions Status

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
16	TYPE-MUN-6	L	15				Munitions Type. EX: MARK 117 750GP.
17	RDS-ONHAN-6	I	6				Number of rounds on hand that are useable.
18	TYPE-MUN-7	L	15				Munitions Type. EX: MARK 117 750GP.
19	RDS-ONHAN-7	I	6				Number of rounds on hand that are useable.
20	TYPE-MUN-8	L	15				Munitions Type. EX: MARK 117 750GP.
21	RDS-ONHAN-8	I	6				Number of rounds on hand that are useable.
22	TYPE-MUN-9	L	15				Munitions Type. EX: MARK 117 750GP.
23	RDS-ONHAN-9	I	6				Number of rounds on hand that are useable.
24	TYPE-MUN-10	L	15				Munitions Type. EX: MARK 117 1750GP.
25	RDS-ONHAN-10	I	6				Number of rounds on hand that are useable.
26	TYPE-MUN-11	L	15				Munitions Type. EX: MARK 117 1750GP.
27	RDS-ONHAN-11	I	6				Number of rounds on hand that are useable.
28	TYPE-MUN-12	L	15				Munitions Type. EX: MARK 117 750GP.
29	RDS-ONHAN-12	I	6				Number of rounds on hand that are useable.

NOTE: The number of objects in this file is based on 8 bases maintaining a munitions stockpile. The number of properties permits a maximum of 12 different types of munitions.

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FILE NAME: Tactical Unit Status

3.1-3.36

SHORT TITLE:

TACUNITSTAT

OBJECT: INIT

MAXIMUM NUMBER OF OBJECTS: 25

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MAXIMUM NUMBER OF OBJECTS:

OBJECT:

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FILE NAME: Tactical Unit Status
SHORT TITLE:
OBJECT:

MAXIMUM NUMBER OF OBJECTS: PAGE 3 OF 4

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
23	A/C-OR-8-2	L	2	S	7		Number of this type of aircraft possessed.
29	ACREW-OR-8-2	L	2	S	10		Number of aircrews possessed.
30	A/C-OR-8	L	2	S	13		Number of this type of aircraft operational ready
31	ACREW-OR-2	L	2	S	16		Number of Aircrews Operational Ready.
32	A/C-OR-8-2	L	2	S	19		Number of this type of aircraft committed
33	ACREW-OR-8-2	L	2	S	22		Number of aircrews committed.
34	A/C-OR-8-2	L	2	S	25		Estimated number of aircraft operational ready 8 hours from as-of-time of this report.
35	ACREW-OR-8-2	L	2	S	28		Estimated number of aircrews operational ready 8 hours from as-of-time of this report.
36	A/C-OR-24-2	I	2				Estimated number of aircraft operational ready 24 hours from as-of-time of this report.

3.1.3.36 (Cont'd) FILE NAME: Tactical Unit Status

SHORT TITLE:

OBJECT: MAXIMUM NUMBER OF OBJECTS: PAGE 4 OF 4

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDCIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
37	SORT-24-2	I	2				Estimated number of sorties operational ready 24 hours from as-of-time of this report.
38	LIMITFACT-2	L	25				Reason(s) for an "OR" status being below standard NOTE: The number of objects in this file is based on 8 fighter squadrons with one dispersal base per squadron, one reconnaissance squadron with one dispersal base, and SAR located at three bases. The number of properties is based on a unit having not more than 2 aircraft types.

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MAXIMUM NUMBER OF OBJECTS: 75

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	BASE	L	4	M											
2	TGT-NO	L	4	S											Number assigned specific target. EX: AC69
3	TGT-NAME	L	40												Target Name
4	TGT-LOC	L	12												Target Location in LAT/LONG
5	TGT-DESCRIP	L	34												Target Description. EX: LOC, RAILWAY, AIRFIELD, MISSILE, TARGET PRIORITY.
6	TGT-PRI	I	1												Target Priority
7	REC-ORD-1	L	4												Ordnance Code recommended
8	REC-ORD-2	L	4												Alternate Ordnance code recommended
9	MSN-TYPE	L	2												IN (Interdiction) or CA (Counter Air)
10	A/C-TYPE	L	6												Aircraft type, model, series
11	SORT	I	2												Sorties recommended
12	FTR-SUPP	L	1												Enter 'X' if fighter support is required
13	EW-SUPP	L	1												Enter 'X' if EW support is required
14	DTOT	L	10	M											Desired time on target

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MAXIMUM NUMBER OF OBJECTS:

3.1.3.37 (Cont'd)

OBJECT:

PROPERTY NUMBER			PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
15	DATE-1	L	5	S	1	Date - 71252										
16	TIME-1	L	4	S	7	Time - 0800										
17	LTOT	L	10	M		Latest Time on Target										
18	DATE-2	L	5	S	1	Date - 71252										
19	TIME-2	L	4	S	7	Time - 0800										
20	MSN-1	L	12			Mission number assigned to Mission #1										
21	SORT-1	I	2			Sorties assigned to Mission #1										
22	ORD-1-1	L	4			Ordnance code assigned to Mission #1										
23	ORD-1-2	L	4			Alternate Ordnance Code assigned to Mission #1										
24	ETOT-1	L	10	M		Estimated time on target for Mission #1										
25	DATE-3	L	5	S	1											
26	TIME-3	L	4	S	7											
27	MSN-2	L	12			Mission number assigned to Mission #2										
28	SORT-1	I	2			Sorties assigned to Mission #2										
29	ORD-2-1	L	4			Ordnance code assigned to Mission #2										
30	ORD-2-2	L	4			Alternate Ordnance Code assigned to Mission #2										

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MAXIMUM NUMBER OF OBJECTS:

3.1.3.33 (CONT'D) FILE NAME: Target
SHORT TITLE:
OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE		EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
		PROPERTY TYPE	PROPERTY NAME		COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION			
31	TIME-3	L	10	M				Estimated time on target for Mission #2	
32	DATE-4	L	5	S		1			
33	TIME-4	L	4	S		7			
34	ORD-3	L	12					Mission number assigned to Mission #3	
35	SORT-3	I	2					Sorties assigned to Mission #3	
36	ORD-3-1	L	4					Ordnance code assigned to Mission #3	
37	ORD-3-2	L	4					Alternate Ordnance Code assigned to Mission #3	
38	ETOT-3	L	10	M				Estimated time on target for Mission #3	
39	DATE-5	L	5	S		1			
40	TIME-5	L	4	S		7			
41	MSN-4	L	12					Mission number assigned to Mission #4	
42	SORT-4	I	2					Sorties assigned to Mission #4	
43	ORD-4-1	L	4					Ordnance Code assigned to Mission #4	
44	ORD-4-2	L	4					Alternate Ordnance Code assigned to Mission #4	
45	ETOT-4	L	10	M				Estimated time on target for Mission #4	

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3.1.3.37 (Cont'd) FILE NAME: Target
 SHORT TITLE: OBJECT:
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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
46	DATE-6	L	5	S	1		Mission number assigned to Mission #5
47	TIME-6	L	4	S	7		Sorties assigned to Mission #5
48	MSN-5	L	12				Ordnance Code assigned to Mission #5
49	SORT-5	I	2				Alternate Ordnance Code assigned to Mission #5
50	ORD-5-1	L	4				Estimated time on target for Mission #5
51	ORD-5-2	L	4				
52	ETOT-5	L	10	M			
53	DATE-7	L	5	S	1		Mission number assigned to Mission #6
54	TIME-7	L	4	S	7		Sorties assigned to Mission #6
55	MSN-6	L	12				Ordnance code assigned to Mission #6
56	SORT-6	I	2				Alternate Ordnance Code assigned to Mission #6
57	ORD-6-1	L	4				Estimated time on target for Mission #6
58	ORD-6-2	L	4				
59	ETOT-6	L	10	M			

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MAXIMUM NUMBER OF OBJECTS:

Target

FILE NAME:

SHORT TITLE:

OBJECT:

PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
60	ATT-6	L	5	S	1		
61	TIME-6	L	4	S	7		
62	TIME-6	I	1			0-6	Number of fighter missions assigned to the Target. NOTE: All times are Julian date/time.

```
FILE NAME:  TRACK DATA
SHORT TITLE: TRACKDATA
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MAXIMUM NUMBER OF OBJECTS: 15

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBDCD FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION	RANGE/VALUE	REMARKS/DESCRIPTION
1	NAME	L	6	M		A-Z-00-99-A-Z	Enter the track designator. The first letter represents the station where track was detected. The two digits represent the track number assigned by the station which detected the track. Starting at 0001Z, daily numbers run from 01-99. The last letter represents the station currently observing the track. If track is interceptor, the first two letters entered are derived from the first and last letters of a one-word call sign (HUSHY-HY) or the first letters of each word in the case of a two word call sign (LIMA MIKE-LM).
2	TRACK	L	6	S	1		
3	REPORT	L	1				Enter "I" for initial or "A" for amending Zulu time
4	TIME	I	4			0001-2400	
5	TPOS	L	12				Track position (LAT/LONG) Direction of Track
6	COURSE	L	2			N,NE,E,SE,S,SW,W,NW	
7	CLASS	L	1				Enter: H-Hostile,K-Faker,U-Unknown,P-Pending,E-Emergency,I-Air Defense Fighter,V-VIP,S-Special,F-Other.
8	NUM	I	2				Number of aircraft in track Enter altitude in 1000' increments Enter speed in 10 knot increments Amplifying data
9	ALT	I	2				
10	SPD	I	3				
11	REMARKS	L	45				

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MAXIMUM NUMBER OF OBJECTS: 100

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	2	3	4	5	6	7	8	9	10	11	12				
1	NAME	L	12	M											
2	AGENCY	L	12	S											Agency name. EX: TAF-HQ
3	C/S	L	12												Agency call sign. EX: FOOTBALL
4	LOC	L	15												Agency location. EX: TAEGU AB
5	LAT/LONG	L	12												
6	UTM	L	8												UTM coordinates. EX: BS730172
7	LI	L	4												Location indicator. EX: RKIN
8	AGENCY-TYPE	L	4												Type of agency. EX: AF
9	FREQ	L	5												Agency frequency. EX: 236.6
10	DESIGNATOR	L	2												Agency designator. EX: AA
11	ADD	L	30												Agency address. EX: COMMANDER TAF-HQ
12	COMP-ROUTE	L	4												Computer routing. EX: 0002

3.1.3.40 FILE NAME: Unit Frag Distribution (Adjustment)
 SHORT TITLE: UNITFRAGDIS
 OBJECT: UNIT
 MAXIMUM NUMBER OF OBJECTS: 15
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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	NAME	L	4	M	S	1								Three digit unit identifier. EX: 112, 555, 124	
2	UNIT	L	3											Action addressee. EX: CMDS 111TFS SUWON AB (Compulsory Prop.)	
3	ACTION	L	30											Information addressee. EX: CMDR 11TFW SUWON AB (Not Compulsory)	
4	INFO-1	L	30											Information addressee.	
5	INFO-2	L	30											Information addressee.	
6	INFO-3	L	30											NOTE: For programming - value of name consists of 3 digits and A/. EX: 112/. 110/. 124/	

3.1.3.4.1

FILE NAME: Unit Planning

SHORT TITLE:

OBJECT:

MAXIMUM NUMBER OF OBJECTS:

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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION			
16	HOME-BASE	L	4			Enter 4 letter station identifier	
17	HOME-BASE-CO	L	12			Home Base Coordinates	
18	DISP-BASE	L	4			Enter 4 letter station identifier for dispersal base	
19	DISP-BASE-CO	L	12			Dispersal Base Coordinates	
20	A/C-TYPE-1	L	6			Enter Type, Model and Series-Home Base	
21	SORT-AVAI-1	I	3		+ OR - 00 to 99	Enter Sorties available for aircraft type in prop. 19	
22	SORT-COMM-1	I	2			Enter Sorties committed for aircraft type in prop. 19	
23	A/C-TYPE-2	L	6			Enter type, model and series-Home Base	
24	SORT-AVAI-2	I	3		+ OR - 00 to 99	Enter Sorties available for aircraft in prop.22	
25	SORT-COMM-2	I	2			Enter Sorties committed for aircraft in prop. 22	
26	D-A/C-TYPE-1	L	6			Dispersed aircraft, type, model and series	
27	D-SOR-AVAI-1	I	3		+ OR - 00 to 99	Dispersed sorties available for aircraft in prop. 25	
28	D-SOR-COMM-1	I	2			Dispersed sorties committed for aircraft in prop. 25	
29	D-A/C-TYPE-2	L	6			Dispersed aircraft (Different type). Type, Model and Series	
30	D-SOR-AVAI-2	I	3		+ OR - 00 to 99	Dispersed sorties available for aircraft in prop. 28	
31	D-SOR-COMM-2	I	2			Dispersed sorties committed for aircraft in prop.28.	

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MAXIMUM NUMBER OF OBJECTS: 800

Working Simulation

FILE NAME:

SHORT TITLE: WORKSIM

OBJECT: TIME

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	8	M	1	DDD/DDDD						Julian Day. EX: 252/			
2	DAY	L	4	S	5							EX: 0800			
3	TIME	L	4	S								Text of message			
4	IN-MSG	T	550	M	1							EX: DASC, 110TUOC, etc.			
5	SOURCE	T	15	S	17							EX: REFR, ABTR, TAUS, TKOR, etc.			
6	MSG-TYPE	T	4	S	22										
7	MSG-DAT	T	520	S											

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3.1.1.3.43 FILE NAME: 110TFS Mission File
 SHORT TITLE: 110MSN
 OBJECT: MSN-NUM
 MAXIMUM NUMBER OF OBJECTS: 20
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PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	NAME	L	12	M	1	1	1	1	1	1	1	Mission Number. 110-252-CA01			
2	MSN-NUM	L	12	S	1	1	1	1	1	1	1	Unit Number. 110			
3	UNIT	L	3	S	1	1	1	1	1	1	1	Julian Day. 252			
4	DAY	L	3	S	1	1	1	1	1	1	1	Mission Type. CA			
5	MSN-TYPE	L	2	S	1	1	1	1	1	1	1	Sequence Number. 01			
6	SEQ-NUM	L	2	S	1	1	1	1	1	1	1	Number of Sorties			
7	SORT	I	2									Aircraft Type			
8	A/C-TYPE	L	6									Estimated Time of Departure			
9	ETD	L	10	M	1	1	1	1	1	1	1	Estimated Time of Return			
10	DATE-1	L	5	S	1	1	1	1	1	1	1				
11	TIME-1	L	4	S	1	1	1	1	1	1	1				
12	ETR	L	10	M	1	1	1	1	1	1	1				
13	DATE-2	L	5	S	1	1	1	1	1	1	1				
14	TIME-2	L	4	S	1	1	1	1	1	1	1				
15	BASE	L	4									Base Designator			

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3.2.3.4 FILE NAME: 111 TFS Mission File
 SHORT TITLE: 111MSN
 OBJECT: MSN-NUM
 MAXIMUM NUMBER OF OBJECTS: 20
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PROPERTY NUMBER	PROPERTY NAME	PROPERTY TYPE	EBCDIC FIELD SIZE			RANGE/VALUE	REMARKS/DESCRIPTION
			EBDIC FIELD SIZE	COMPLEX PROPERTY INDICATOR	SLAVE PROPERTY START LOCATION		
1	NAME	L	12	M	1	Mission Number. 111-252-CA01	
2	MSN-NUM	L	12	S	1	Unit Number. 111	
3	UNIT	L	3	S	5	Julian Day. 252	
4	DAY	L	3	S	9	Mission Type. CA	
5	MSN-TYPE	L	2	S	11	Sequence Number. 01	
6	330-ITEM	L	2	S		Number of Sorties	
7	SHORT	I	2			Aircraft Type	
8	A/C-TYPE	L	6			Estimated Time of Departure	
9	ETD	L	10	M	1		
10	DATE-1	L	5	S	7		
11	TIME-1	L	4	S			
12	ETR	L	10	M	1	Estimated Time of Return	
13	DATE-2	L	5	S	7		
14	TIME-2	L	4	S			
15	BASE	L	4			Base Designator	

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FILE NAME: 113 TFS Mission File
SHORT TITLE: 113MSN
OBJECT: MSN-NUM

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MAXIMUM NUMBER OF OBJECTS: 20

PROPERTY NUMBER		PROPERTY NAME		PROPERTY TYPE		EBCDIC FIELD SIZE		COMPLEX PROPERTY INDICATOR		SLAVE PROPERTY START LOCATION		RANGE/VALUE		REMARKS/DESCRIPTION	
1	UNIT	L	12	M	1							Mission Number. 113-252-CA01			
2	UNIT	L	12	S	1							Unit Number. 113			
3	DAY	L	3	S	5							Julian Day. 252			
4	DAY	L	3	S	5							Mission Type. CA			
5	MSN-TYPE	L	2	S	9							Sequence Number. 01			
6	MSN-NUM	L	2	S	11							Number of Sorties			
7	MSN-NUM	L	2	S	11							Aircraft Type			
8	DATE-1	L	10	M	1							Estimated Time of Departure			
9	DATE-1	L	5	S	1							Estimated Time of Return			
10	TIME-1	L	4	S	7										
11	TIME-1	L	4	S	7										
12	DATE-2	L	10	M	1										
13	DATE-2	L	5	S	1										
14	TIME-2	L	4	S	7										
15	BASE	L	4	S	7							Base Designator			

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**MISCELLANEOUS
REQUIREMENTS****3.1.4 Human Performance**

The functional software as specified in the Operational Requirements Section of this document has been designed to support TACC personnel in the performance of their Current Operations activities. As such, this software design is basically interactive in nature. That is, it responds to user requests to initiate specific processes and presents the user with display data for his evaluation and further action. Additionally, the software contains a real-time capability for the processing of input messages containing data from TACS elements.

The human performance considerations for the interactive portion of this software include:

- a) The development of meaningful and concise operator actions which are consistent throughout the software package.
- b) The development of display capabilities which present data in a clear and usable manner.
- c) The inclusion, where appropriate, of the anticipated next operator request in data displays.

3.2 CEI DEFINITION

This section describes the relationship between functional software, as defined in this specification, and the government furnished software.

3.2.1 Interface Requirements

The functional software will be compatible with and able to be operated in conjunction with the government produced Airlift Software. This compatibility will be effected through the utilization of the government furnished data management system executive and the integrated operating system. Functional software requirements as specified in the System Control Function description represent additions to existing capabilities and do not negate any existing support provided for the Airlift Software.

The government furnished equipment provided within the TDSDT (See section 3.1 for complete list and description) will be utilized in the implementation of the functional software. This specification is not intended to delimit the distribution of processing tasks to the various equipment elements. As a function of the program design activity the distribution of processing tasks will be defined.

3.2.2 Government-Furnished Property List

The General Purpose and Functional Software available in the TDSDT as of 10 August 1970 is documented in a series of volumes. SDC TM-LX-346/200 describes the software systems as a whole, while TM-LX-346/201 to 346/203 describe individual program modules. These documents provide a description of the government furnished computer programs which are to be considered in the development of functional software to satisfy the requirements of this specification.

3.3 DESIGN REQUIREMENTS

The TDSDT system structure is such that certain processing functions must operate on a time interval basis, and some are of a higher priority than others. To minimize overhead processing time System Control will not interrupt processing in progress to begin a different function. Hence to satisfy the requirement of certain processing occurring on a time interval or priority interrupt

basis, programs should be designed such that logical breaks in processing will occur. These breakpoints will be used to allow the execution of other processes of a higher priority should they exist within the job queue. These breakpoints should be chosen to maximize the efficiency of program operation and yet provide responsiveness to priority processing requirements.

Data Standards

The file formats and structures must adhere to the file specification requirements of the TDSDT System.

Display Development

The presentation of display data at a user station must be controlled to prevent destroying existing display presentations which may be of value at the user station. The design within this specification effects centralized control of displays by identifying available display data in concise communication displays presented in lines 1 and 2 of the display screen. Any displays appearing in lines 4-32 of the display surface are only presented as a result of an operator request for the display or as a direct result of processing performed in response to an operator action. This design logic must be adhered to in the development and presentation of display data resulting from processing within the functional software. This will allow the user to maintain control over the display environment and effectively direct the system as opposed to its directing and restricting him.

User Station Equipment Utilization

The design within this specification is intended to allow the operator to maintain control over the utilization of equipment at his station. This is deemed necessary due to the flexible nature of the equipment, the dynamic nature of the functional processing requirements and the varying stresses and needs of the personnel at the stations to be responsive to the operational situations. The system as developed should not restrict the operator's utilization of user station equipment, but allow as far as possible a flexible environment in which the user maintains control.

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4.0 QUALITY ASSURANCE PROVISIONS

This section identifies the quality assurance provisions to be applied in the development of functional software. This section identifies the testing to be performed as specified in the Statement of Work.

4.1 COMPUTER PROGRAMMING TEST AND EVALUATION

Computer program testing will be performed to verify that the functional software satisfies the design requirements stated in section 3.0, Requirements, of this specification and also to assure that it provides the necessary capabilities to support the operational demonstration as specified in TM-LX-346/800/01 the Category I Test Plan/Procedures for TACC Functional Software.

4.1.1 Test Methodology

Testing will be performed in three related steps:

- . Testing of individual program modules
- . Testing sets of program modules
- . System testing of the integrated computer program package.

In performing the testing the following requirements will be identified:

- . the test environment (hardware and software resources required)
- . the range of conditions and data values required to exercise the individual program module or modules
- . the test techniques to be employed
- . the test results expected.

4.1.2 Test Performance

Individual program modules will be tested using simulated inputs. Outputs from the program modules will be compared with predicted outputs. This technique will be repeated for program modules tested together in sets. The test techniques and data required to achieve system test objectives will be done prior to integration testing to provide an efficient transition to the operational demonstration.

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4.2 OPERATIONAL DEMONSTRATION

The operational demonstration of TDSDT functional software will demonstrate the specific functional programs produced and will evaluate the capability of these programs to support the operational requirements imposed on a TACC in a realistic tactical situation. The approved Part I Performance Design Requirements for TACC Functional Software will be used as the baseline for available software. A scenario reflecting a medium tactical force situation will be generated to provide the general tactical situation and operational criteria will be established for the operational functions of a TACC. The Category I Test Plan/Procedures for TACC Functional Software as documented in TM-LX-346/800/01 will describe the plans and procedures for conducting the operational demonstration.